DOCUMENT RESUME

ED 083 458 95 CE 000 483

AUTHOR	Korim, Andrew; And Others
TITLE	A Study of the State Grants Mechanism. Final Report.
INSTITUTION	National Planning Association, Washington, D.C. Center for Priority Analysis.
SPONS AGENCY	Office of Program Planning and Evaluation (DHEW/OE), Washington, D.C.
BUREAU NO	BR-8-0643
PUB DATE	Oct 72
CONTRACT	OEC-0-71-3707
NOTE	133p.
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	Disadvantaged Groups; *Educational Finance; *Federal Aid; Federal Legislation; *Federal State Relationship; Grants; Physically Handicapped; Post Secondary Education; Resource Allocations; School District Autonomy; Tables (Data); *Vocational Education
IDENTIFIERS	Vocational Education Amendments of 1968

ABSTRACT

The report analyzes the characteristics of the State grant mechanism for the distribution of Federal vocational education funds to local education agencies and compares total vocational educational expenditures between 1969 and 1971. The State grant mechanism is studied in terms of the extent to which funds set aside for disadvantaged, for handicapped, and for postsecondary students reach these target populations; the extent to which the States have been able to allocate the Federal funds to the localities based on ability to pay, excess costs of vocational education, vocational needs, and manpower needs; and a review of State vocational education expenditures and the degree to which they reflect Federal vocational education priorities as specified in the 1968 Vocational Education Amendments. The report concludes that the approach of the 1968 Amendments is an appropriate one in that it fits contemporary American federalism. It further concludes that the Tydings Amendment should be extended but that changes in the formula used to allocate money to the States would be in order. Supportive statistical tables and related data are incorporated into the report. There is a five-page bibliography. (AG)

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OCTOBER 1972

A STUDY OF THE STATE GRANTS MECHANISM

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FINAL REPORT
Project No. 8-0643
Contract No. OEC-0-71-3707

STUDY OF THE STATE GRANTS MECHANISM

Center for Priority Analysis
National Planning Association

Washington, D.C.

October, 1972

The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
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Office of Education
Office of Program Planning and ~~Education~~ Evaluation

FOREWORD

This final report on the study of the State Grant Mechanism presents an assessment of the extent to which the priorities of Congress, as expressed in the 1968 Vocational Education Amendments, have been reflected by the States in their distribution of Federal funds for vocational education. The study was performed for the Office of Program Planning and Evaluation of the U.S. Office of Education by the National Planning Association's Center for Priority Analysis.

The report consists of an analysis of the characteristics of the State grant mechanism for the distribution of Federal vocational education funds to local education agencies and a comparison of total vocational education expenditures between 1969 and 1971. It further presents an analysis of Federal, State, and local expenditures to Special Target Populations for 1971. The report also presents an analysis of unobligated Federal funds and the leverage effect of Federal vocational education expenditures on State/local expenditures for vocational education. Finally, the report presents conclusions and policy recommendations growing out of the overall assessment of the State grant mechanism.

The National Planning Association wishes to express its appreciation to national and state officials representing the Office of Education and local education officials whose cooperation made this study possible.

The study was conducted under the overall direction of Dr. Leonard A. Lecht, Director of the Center for Priority Analysis. Project Manager was Dr. Marc Matland and the Principal Investigator John B. Teeple. Project staff who conducted the field work and participated in writing the final report were Andrew Korim, Montgomery Beard, Bruce Davie - professor of Economics, Georgetown University, Louis Basinger, Julius Moore, Allen Dellefield, Robert Hazlett, and Ann Maust. The project secretary was Mrs. Stephanie Johnson. Others who contributed to the project include Nancy Monroe, Chris Muzyk, Pamela Gillespie, and Margaret Takenaka.

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CHAPTER I

Introduction

A. An Overview Of Federal Aid For Vocational Education

1. History

Historically, the preparation of persons for entry into the labor market and the upgrading of the labor force has not been high on the list of the priorities for education. The Merrill Acts gave emphasis to agricultural education. The early land grant colleges, such as those that were initially established in Michigan and Pennsylvania in the middle of the nineteenth century, were sometimes referred to as "farmers' colleges," with the stated purpose of preparing people to become better at the vocation of farming. They lost this vocational character gradually.

Federal support for vocational education and training via state grants became institutionalized under the Agricultural Extension Act of 1914 (Smith-Lever Act), and the National Vocational Education Act of 1917 (Smith-Hughes Act). The George-Reed Act of 1929, the George-Ellzey Act of 1934 and the George-Deem Act of 1936 strengthened the practice of distributing Federal funds for vocational education purposes through the States.

With the end of World War II, through the Employment Act of 1946 the Congress addressed itself to the concept of full employment. However, there was no such national priority given to a sustaining source of manpower to enter into the labor market with the skills required by the post-war technological advances and by the burgeoning sources of employment such as construction, heavy industry, manufacturing, transportation, human services, and government services. The Vocational Education Act of 1946 (George-Barden Act) and the earlier legislation was not adequate to do the job that the

economy needed on the supply side of the labor market. Full employment without people who had the critical skills needed for employment in the labor market was a one-sided concept. Demand for skilled people alone, without a sustaining supply of skilled people (skilled to perform the contemporary jobs of our economic and social structure),would not contribute to full employment.

In the middle 1950's, an awareness of this phenomenon began to emerge, and in the midst of the recession of the early 1960's an intensified focus on the supply of labor began to take shape. The Manpower Development and Training Act of 1962, the Vocational Education Act of 1963, and the Economic Opportunity Act of 1963 each attempted to pump Federal dollars into the States and local communities to bring the supply of labor in balance with demand in a more realistic manner than was possible under the earlier legislation. An unmanageable array of Federal programs was addressing basically the same problem -- making people better prepared to fill the jobs in the private and public sectors of the economy. A number of thrusts emerged as a result. High schools, area vocational schools, community and junior colleges, technical institutes and proprietary vocational and technical schools and colleges were attracted into the business of preparing people with marketable skills.

The flow of funds was uncoordinated and often missed those population targets that needed the most help. Congress, at least in a token way, undertook to identify priority considerations and to take the Vocational Education Act of 1963, the Smith-Hughes Act, and the George-Barden Act, and other legislation to weld together a mechanism to provide a more effective approach to Federal financial support to States and local educational agencies. This effort manifested itself in the form of the Vocational Education Amendments of 1968.

The 1968 Amendments provide for Federal grants to the States to be used in supporting vocational education and training and related services for several specific categories of persons. The Amendments also designate specific guidelines consisting of criteria and procedures for the distribution of these grants. The combination of these guidelines and criteria comprise the mechanism by which the States distribute Federal vocational education funds to local education agencies in a manner which reflects the intent of Congress.

This study will look at the State grant mechanism as it presently exists as a result of the Vocational Education Amendments of 1968 in terms of (a) the extent to which funds set aside for disadvantaged, for handicapped, and for postsecondary students reach these target populations; (b) the extent to which the States have been able to allocate the Federal funds to the localities based on 1) ability to pay, 2) excess costs of vocational education, 3) vocational education needs, and 4) manpower needs; and (c) a review of State vocational education expenditures and the degree to which they reflect Federal vocational education priorities as specified in the 1968 Amendments.

2. The Concern About State Grant Mechanisms

Although the traditional method of channelling Federal monies for vocational education to the local education agencies has been through Federal Grants to the States, it has only been within the past decade that any noticeable concern for the State grant mechanism has been demonstrated. The Congress, intent on providing a uniform system of Vocational Education geared to serve the occupational needs of all people in a community, wrote into the

1963 Vocational Education legislation a specific requirement. This requirement specifies that each State must set forth in its State plan the policies and procedures to be used in allocating its Federal allotment among the various purposes of the Act: i.e., ancillary services, area school construction, etc. This legislation further requires that the States designate, "in allocating Federal funds to local education agencies. . . which policies and procedures insure that due consideration will be given"[1/] to such factors as current and projected manpower needs and job opportunities.

This concern on the part of Congress appears limited, however. For although the Congress insisted on the documentation of policies and procedures and consideration of certain factors in the distribution of funds to local education agencies, it made no attempt to influence expenditure patterns through the State grant mechanism. Two examples should suffice: (1) although the Congress required that Vocational Education Act funds should not necessarily be held to the traditional occupational areas outlined in the Smith-Hughes and George-Barden Acts, neither did it restrict funds from them, [2/] and (2) although it placed emphasis on the need for postsecondary vocational education by specifying that at least one third of the funds allotted under the 1963 Act be expended for either construction of area vocational schools or for postsecondary education, it did not attempt to insure, through the State grant mechanism, that funds were used for this purpose.

1/ U.S. Congress, "Vocational Education Act of 1963," Public Law 88-210, 88th Cong., 1st Session, 1963, Section 123(a)(6).

2/ Mangum, Garth L. Reorienting Vocational Education, Policy Papers in Human Resources and Industrial Relations, No. 7. Institute of Labor and Industrial Relations, University of Michigan, Ann Arbor, and Wayne State University, Detroit, and the National Manpower Policy Task Force, Washington, D.C., May 1968. p.5

As a result, the States overwhelmingly opted for area school construction. Thus, based on the 1963 legislation, as Grant Venn[3/] pointed out, any State could "expend any amount of funds it wish[ed] on any particular purpose. A State, by its own decision, could [have spent] ninety percent of the vocational education money in the 1963 Act for disadvantaged use."[4/]

3. The 1968 Vocational Education Amendments

Federal concern for the State grant mechanism reached a culmination in the Vocational Education Amendments of 1968. In an attempt to exert more control over the use of its funds and to insure that its goals would be furthered, the Federal government established, for the first time, in the Vocational Education Amendments of 1968, certain guidelines for the State grant mechanism.

The Federal, State and local expenditures for vocational education in 1971 present the first opportunity to look at the spending patterns resulting from the enactment of the Vocational Education Amendments.

3/ Associate Commissioner for Adult Vocational and Library Programs, Bureau of Adult, Vocational and Technical Education, Office of Education, U. S. Department of Health, Education and Welfare.

4/ U.S. Congress. Senate. Committee on Labor and Public Welfare. Subcommittee on Education. Ninetieth Congress, Second Session. Hearings on S.3098 to Amend the Higher Education Act of 1965, the National Defense Education Act of 1958, the National Vocational Student Loan Insurance Act of 1965, the Higher Education Facilities Act of 1963, and related Acts; S.3099 to Amend the Vocational Education Act of 1963, and for Other Purposes and Related Bills. Part 5. March 12, 1968. U.S. Government Printing Office, Washington, D.C. D 2352.

Table I. 1 presents the national disposition of these Federal, State and local vocational education funds for specific purposes for the Fiscal Year 1971. Column one lists the specific purposes for which the monies were to be spent as identified by the Vocational Education Act. Column two presents the amounts of money authorized by Congress as specified by the Education Act of 1963 and subsequent amendments for the specific purposes. Column three presents the amounts of money that were appropriated in 1971. Column four presents the amounts allotted to the States for Fiscal Year 1971. Columns five and six present the expenditures of Federal, State and local funds for Fiscal Year 1971. Column eight presents the Vocational Education Act restriction on the Federal share of expenditures defined as the percent of total expenditures for any purpose which may be financed from Federal monies. Fifty percent means that the State/local funds must match Federal expenditures dollar for dollar -- 100 percent means that there is no matching requirement and Federal monies may be used to pay for the entire cost of a program.

Part A funds identified in Column 1 are designated specifically for the vocational education of those persons who have academic, socio-economic, or other handicaps that prevent them from succeeding in regular vocational education programs. It differs only from Part B(4)(A) funds in that it has been set aside for allocation to areas within States which are characterized by having a higher concentration of youth unemployment and a high school drop-out rate. There is no State or local matching requirement for this purpose. The expenditure of Federal funds for Part A in 1971 exceeded the amount allotted to the States for that year. This was possible because of the Tydings Amendment of 1968 which allows for the carry-over of unexpended Federal vocational education funds from one year to the next.

Table I.1 Distribution of Federal and State/Local Funds for Vocational Education by Purpose, Fiscal Year 1971

Purposes	Amounts, Fiscal Year 1971 (millions of dollars)					Matching Requirement (Maximum Federal Share)	Special Provisions Regarding State Grant Mechanisms
	Authorization	Appropriations	Allotment to the States	Expenditures by States & localities*			
				Federal funds	State/local funds		
A. Vocational education for persons who have academic, socio-economic, or other handicaps that prevent them from succeeding in regular vocational education programs	50.0	20.0	20.0	21.2	9.8	100%	Shall be allocated within the State to areas of high concentration of youth unemployment and school dropouts.
B. Basic program (total)	607.5	321.7	321.7	310.4	1715.5	50%	In the distribution of funds to local educational agencies due consideration will be given to A) current and projected manpower needs and job opportunities, particularly new and emerging needs and opportunities on the local, State, and national levels. B) relative vocational educational needs of all population groups C) relative ability of local educational agencies to provide the resources necessary to meet vocational education needs. D) costs of programs, services, and activities provided by local educational agencies which are in excess of normal costs of education. Funds will not be allocated to local educational agencies at a uniform matching rate throughout the State. No local educational agency which is making a reasonable tax effort will be denied funds for the establishment of new vocational education programs solely because it is unable to pay the non-Federal share of the cost of such new programs.
(1) Vocational education for high school students				86.5	888.1		
(2) Vocational education for persons who have completed or left high school and who are available for study in preparation for entering the labor market				71.9	401.0	Not less than 15% of the funds allotted for B to be used for B(2).	
(3) Vocational education for persons who have already entered the labor market and who need training or retraining to achieve stability or advancement in employment				15.9	93.9		
(4)(A) Vocational education for persons who have academic, socioeconomic or other handicaps that prevent them from succeeding in regular vocational education programs				50.1	86.4	Not less than 15% of the funds allotted for B to be used for B(4)(A).	
(B) Vocational education for handicapped persons				33.0	26.6	Not less than 10% of the funds allotted for B to be used for B(4)(B).	
(5) Construction of area vocational education school facilities				51.7	228.3		
(6) Vocational guidance and counseling				(7.3)	(45.6)		
(7) Provision of vocational training through arrangements with private vocational training institutions				(1.5)	(6.0)		
(8) Ancillary services and activities				(36.7)	(76.3)		
C. Research and training in vocational education	67.5	35.7	17.9	8.7	3.3	75% → (for State research coordinating unit) 90% → (for other purposes)	
D. Exemplary programs and projects	75.0	16.0	8.0	7.3	3.7		
E. Residential Vocational Education Demonstration Schools	35.0	0.0	0.0	0.0	0.0	90%	
F. Consumer and homemaking education (in depressed areas)	25.0	21.2	21.2	17.9	169.9	5%	At least one-third of these funds shall be used in economically depressed areas or areas with high rates of unemployment
				(8.2)	(54.1)	90%	
G. Cooperative work-study programs	35.0	18.5	18.5	17.1	12.4	100%	
H. Work-study programs	45.0	5.5	5.5	5.7	3.2	100%	
I. Curriculum development	10.0	4.0	0.0	0.0	0.0		
Advisory Councils	sums as may be necessary	2.7	2.4	N.A.	N.A.	100%	

* Excludes: District of Columbia, Hawaii, American Samoa, and Trust Territories. Includes incomplete data for California. For all states data are preliminary.

Source: U.S. Office of Education. "Expenditures for Vocational Education by Source, Purpose, and Level," O.E. Form 3131. Washington, D.C., 1971

Basic program funds are made available to the States for groups and programs identified under Part B in Column one. Ten percent of these funds are set aside for Research and Training in vocational education (Part C). Fifty percent of the Research and Training funds are allotted the States and fifty percent is retained by the U.S. Office of Education to be expended for Research and Training.

Funds under Parts A and B are allotted to the States by the formula originally specified in the 1963 Act. The formula is based upon each State's share of the population in specific age groups:

15 to 19 year olds
20 to 24 year olds
25 to 65 year olds

with the 20-24 year olds population being weighted more heavily than the 25-65 year olds, and the 15-19 year olds being weighted more heavily than the 20-24 year olds.

State allotments are inversely adjusted by the ratio of the per capita income in the States to the national per capita income. The application of this adjustment factor introduces a degree of equalization into the allotments. 5/

Part D funds identified in Column one are designated for Exemplary programs and projects. These funds are to be used to stimulate new ways to create a bridge between school and earning a living for young people who are still in school, who have left school or who are in postsecondary programs

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5/ For a critique of the allotment formula contained in the 1963 Act, see Davie, Bruce F. and Patterson, Philip D., Jr., Vocational Education and Intergovernmental Fiscal Relations in the Postwar Period (Washington, D.C.: U. S. Department of Health, Education, and Welfare, Office of Education, Bureau of Research, December, 1966).

of vocational preparation, and to promote cooperation between public education and manpower agencies. Three percent of these funds are allotted to trust territories for this purpose. Of the 97 percent remaining, $200,000 is allocated to each of the 50 States in proportion to their share of the 15-19 year old group to the national total of 15-19 year olds.

No funds have ever been appropriated for Part E of the Act, for Residential Vocational Education Demonstration Schools.

Part F funds are for Consumer and Homemaking Education programs in the States. These funds are allotted among the States in a manner similar to that employed for Part B funds except that there is no reservation of 10 percent of the funds for research and training programs. At least one-third of these funds are to be used in economically depressed areas or areas with high rates of unemployment. Federal funds can equal 90 percent of total spending for this purpose in these areas. For programs in other areas Federal funds can equal 50 percent of the total.

Part G funds are designated to support Cooperative Vocational Education Programs in the States. These programs are intended to provide students with a meaningful work experience combined with formal education enabling them to acquire knowledge, skills and appropriate attitudes. These funds are specifically intended to assist the States in expanding work-study programs by providing financial assistance for personnel to coordinate such programs and to provide instruction related to the work experience. The funds are also intended to reimburse employers when necessary for certain added costs incurred in providing on-the-job training through work experience and to pay costs that the individual students may not reasonably be expected to assume while pursuing a cooperative work-study program. These funds are allotted among the States in a manner similar to distribution of Part D funds, including the

3 percent allotment to trust territories and the initial $200,000 allocation to each of the 50 States and the District of Columbia. States are not required to match these Federal funds.

Part H funds are designated to support Work-Study programs in vocational education. These funds are to be distributed to the State in amounts which bear the same ratio as the population in the State of persons between the ages of 15 to 20 years to the total national population for the same age group. States are not required to match these Federal funds.

Part I funds are designated for Curriculum Development in Vocational and Technical Education. The funds are used by the Commissioner of the Office of Education to provide appropriate assistance to State and local education agencies in the development of curriculums for new and changing occupations, and to coordinate improvements in and dissemination of existing curriculum materials. There is no formula used for the allotment of these funds among the States. Their use is solely up to the discretion of the Commissioner of Education after consultation with appropriate State agencies and the National Council to make grants to or contracts with colleges or universities, State boards, and other public or non-profit private agencies or institutions.

The provisions of the 1968 Amendments with respect to State grant mechanisms and the set-aside provisions of Part B are also summarized in Table I.1. The 1968 Amendments addressed the issue of State grant mechanisms in general terms, requiring that the States give "due consideration" to at least four factors in making their distributions of funds appropriated under Part B:

- Manpower needs
- Needs for vocational education
- Relative ability of localities to pay for vocational education
- Excess costs of vocational education program

The Federal legislation also expressly prohibited States from simply distributing Federal funds to localities on the basis of a constant fraction of local spending for vocational education, and prohibited States from denying Federal funds to an LEA solely on the grounds that the LEA was unable to provide matching funds.

TABLE I. 2

Federal Allotments to States for
Vocational Education, by Size of Allotment, 1971

Part of Act	Total Allotments to states (millions)	$50,000 or Less	50,000 to 100,000	100,000 to 500,000	500,000 to 1,000,000	1,000,000 to 10,000.000	10,000,000 or over
A	$ 20.0	5	8	26	7	5	
B	321.7			1	5	36	9
C	17.9	6	8	27	7	3	
D	8.0			51			
F	21.2	5	8	24	9	5	
G	18.5			44	7		
H	5.5	18	12	20	1		

Source: U.S. Office of Education, "Vocational Education Grants to States" October 28, 970 (mimeo)

The application of the allotment formulas contained in the Vocational Education Act of 1963 to relatively small appropriations results in many States receiving grants of less than $100,000 for specific parts of the Act. See Table I.2. The majority of the State grants for all parts of the Act fall in the $100,000 to $500,000 range.

Part B of the Act which provides Federal funds for secondary vocational programs and which receives over 50% of the appropriation, provides allotments of at least $1 million to 45 of the states and no state receives

less than $100,000. Some sections of the Act with significantly smaller appropriations but which focus on priority groups or activities provide a number of States with extremely small allotments. Under Part A of the Act, designed for special target populations, for example, 13 states receive less than $100,000 and 5 receive less than $50,000, and under Part H, to support work study programs, 30 states received less than $100,000 and 18 received less than $50,000. If relatively small State grants are divided up among LEAs by a State Grant mechanism that allocates vocational education funds by a formula, the resulting amounts going to each LEA can be very small indeed. These payments to LEAs may be too small to have any significant impact.

4. The Rationale for Federal Aid for Vocational Education

The goals of Federal policy for vocational education were set forth in the 1968 Amendments to the Vocational Education Act of 1963.

> It is the purpose of this title to authorize Federal grants to States to assist them to maintain, extend, and improve existing programs of vocational education, to develop new programs of vocational education, and to provide part-time employment for youths who need the earnings from such employment to continue their vocational training on a full-time basis, so that persons of all ages in all communities of the State—those in high school, those who have completed or discontinued their formal education and are preparing to enter the labor market, those who have already entered the labor market but need to upgrade their skills or learn new ones, those with special educational handicaps, and those in postsecondary schools—will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training.

These goals could be addressed through a variety of programmatic techniques ranging from direct Federal provision of vocational education to payments to individual students who could then buy vocational education services from either public or private institutions. Such a wide range of alternatives was not seriously considered by the Congress. The tradition of supporting vocational education through grants-in-aid to the States was firmly established as consistent with American federalism. The 1968 Amendments substantially modified the terms and conditions of these grants-in-aid.

Federal grants-in-aid can be viewed as attempts to influence spending patterns of State and local governments. As such they alter the cost to these governments of certain types of expenditures. In terms of State and local revenues spent, the objects of expenditure supported by Federal grants become relatively cheaper, and State and local governments are induced to "buy" more of them.

The vocational education program is further complicated by the fact that most publicly supported vocational education is conducted by local educational agencies. Federal grant-in-aid funds pass through the States to these LEA's via a State grant mechanism. In an effort to further Federal goals the 1968 Amendments established certain guidelines for these State grant mechanisms.

Given the policy goals expressed in the 1968 Amendments, several rationales can be identified for implementing those goals through a program of grants-in-aid. Identifying these rationales helps to put in context some of the specific provisions of the Federal program and to establish criteria for judging the success of that program in terms of its impact on State grant mechanisms.

a. Priority differences. The premise of this rationale is that States and localities place too low a priority on vocational education because they perceive the benefits from vocational education to be less extensive than they are thought to be from a national perspective. The benefits from vocational education can accrue to persons who are far removed in time and place from the locality in which it takes place. If these benefits are unrecognized by local decision makers then under-investment in vocational education could result.

b. Effective spending. Even if States and localities spent the "right amount" on vocational education, the aggregate amount might not be distributed appropriately from a national perspective. For example, localities might be training in the wrong occupational areas or might be missing certain target population groups.

c. Fiscal capacity. This rationale holds that lack of revenue prevents States and localities from spending more on vocational education. Such a rationale would not apply to all jurisdictions to the same degree and for some affluent areas would not apply at all.

Each of these rationales calls for a different Federal policy. If differences in priorities were the only rationale, then a categorical grant-in-aid for vocational education would be appropriate. A matching provision would be called for tied to the difference in perceived benefits. That is, if from a Federal perspective the benefits of vocational education were thought to be twice as great as the benefits seen from a State/local vantage point, then a 50 percent matching requirement would be appropriate. Where it is the composition of State/local spending for vocational education that is thought, from the Federal perspective, to be inappropriate, policy must be more complex.

An educational effort might be mounted to persuade State/local decision makers to alter the composition of their vocational education spending. The traditions of American federalism usually rule out a purely regulatory policy that would attempt to directly control the pattern of State and local government spending. If a formula type grant-in-aid is used, its terms must be very specific to accomplish the Federal intent of influencing the specific pattern of spending. An alternative fiscal technique is to structure the grant-in-aid on a project basis rather than distribute funds by a formula. The Federal government can thus approve or reject individual State/local expenditure projects. Where fiscal capacity is the only rationale, a more generalized grant or revenue sharing would be appropriate.

The history of Federal aid for vocational education reflects, to varying degrees, all three of these rationales. Prior to 1963, Federal aid was for vocational education in specific but limited occupational areas. With the Vocational Education Act of 1963 and 1968 Amendments, the focus shifted to population groups; again the fiscal technique used was specific categorical grants. It is recognized that implied differences exist between the Federal government and the States within the area of vocational education. This may explain the less than enthusiastic Congressional reaction to the Nixon Administration's proposal for special revenue sharing in education. The proposal envisioned a block grant for vocational education along with four other block grants for educational purposes. The apparent Congressional intent is to direct vocational education spending in ways different from what would occur if States and localities were free to follow the dictates of their own priorities. This intent is manifested by the specification of separate grants-in-aid, a maintenance of effort requirement, and by stipulations attached to the distribution of Federal funds by a State among local educational agencies.

B. Alternative State Grant Mechanisms

States have basically two alternatives in establishing grant mechanisms to distribute funds, either Federal or their own, to localities.[6/] The first is by formula such as foundation plans for aiding elementary and secondary education. These formulas determine with precision the share of the total amount each locality will receive. They can be based on objective factors such as enrollments and assessed property values per pupil. The second is by the receipt and approval of proposals on a project basis. Of the two the second clearly lodges more power and responsibility at the State level. State officials must draft guidelines for applications, review proposals, and determine what fraction of the total cost of approved projects will be supported with Federal and/or State funds. Although the 1968 Amendments read as if States were expected to take a formula approach most States base the distribution of Federal funds to local school agencies on approved project applications. The formula approach, if properly applied, seems more consistent with concern for equality of educational opportunity as it is more likely to eliminate discretionary action on the part of State officials, and thus increase the probability of an equitable distribution of funds. The clauses in the Amendments referring to set-asides, allocations to depressed areas, and other factors to be considered in the allocation of funds are considered in the review of proposals rather than forming the basis for deriving a formula.

6/Instead of distributing funds to LEA's, State agencies could directly supply vocational education. In part, the State of Kentucky has followed this approach.

The references in the 1968 Amendments to State grant mechanisms plus the set-aside provisions requiring that at least 40 percent of the funds allotted under Part B of the legislation be used for handicapped, disadvantaged and postsecondary students clearly show a Federal concern for the composition of State/local spending for vocational education. The primary Federal concern appears to be with equity in the provision of vocational education. While reference is made to manpower needs, the focus is on individual students - the disadvantaged, the handicapped, postsecondary students, and those in depressed areas. From this Federal perspective one can deduce normative criteria for State grant mechanisms as follows:

State grant mechanisms should not act in such a way as to deny persons access to vocational education on the basis of their place of residence within the State. This implies that localities lacking the fiscal capacity to support even a portion of the costs of vocational education should not be denied Federal funds. There should be no rural or urban bias such as funding programs for the disadvantaged only in urban areas.

State grant mechanisms should be made explicit so that local school administrators and Federal officials can clearly understand the procedures followed by the State in allocating Federal funds. Local officials should participate in the development and periodic review of the grant mechanism.

State grant mechanisms should be consistent with a well-articulated State plan for vocational education, a plan that specifies objectives in terms sufficiently quantifiable so as to permit and encourage ongoing evaluation.

State grant mechanisms should not spread small amounts too thinly. When total amounts are relatively small, funds large enough to make a difference

should be given to a few LEAs rather than honoring a sense of equity by giving dribs and drabs to every LEA.

A distinction needs to be drawn between good State grant mechanisms and good vocational education programs. Suppose, for example, that the State grant mechanism is essentially based on project applications and approvals, as is the case in most States (see Chapter 2). Localities propose projects for which they seek State approval and partial funding with Federal funds. If State officials exercise their judgement and select the "best" proposals for funding they are in effect denying educational opportunities to those unlucky enough to live in jurisdictions where school administrators are not interested or competent enough to develop acceptable projects. This procedure may result in good vocational education programs but does not constitute a good grant mechanism. Conversely, the implementation of a grant mechanism that allocates Federal funds to localities on the basis of a good formula might not result in good programs if local administrators use the funds they automatically receive unwisely. The submission of weak proposals, or the failure to submit proposals, calls for the exercise of State leadership and technical support, not simply the denial of funds.

CHAPTER II

The State Grant Mechanism

The main purpose of this chapter is to describe the State grant mechanisms in effect in 1971 and to make some comparisons of fiscal data for 1969 and 1971. The chapter concludes with an analysis of vocational education spending in cities, SMSAs, and depressed areas.

A. Federal Aid For Vocational Education In 1969

1. Federal Authorizations and Allotments

Table II.1 provides a graphic presentation of Federal funding for vocational education in FY 1969. Specifically, it provides a breakdown of Federal authorizations and allotments to the States for each Act, VEA of 1963, Smith-Hughes, and George-Barden--and for specific purposes within each of the Acts. In addition, it shows the transfer of funds among the Acts since many States took advantage of the provisions of the VEA Act of 1963 that permitted Smith-Hughes funds to be transferred into the spending categories of either the George-Barden or 1963 Acts and the transfer of George-Barden funds into the categories of the 1963 Act. The minus sign references those funds that were transferred out of an Act; correspondingly, the plus sign references those funds that were transferred into an Act. Further, Table II.1 provides a breakdown of Federal and State/local expenditures by Act and by specific purposes within each Act. Notable features of the table include: 1) the maximum Federal share designated in the matching requirement of each Act, and 2) special provisions regarding the State grant mechanism as referenced in the various purposes of each Act.

Table II.1 Distribution of Federal & State/Local Funds for Vocational Education by Purpose, Fiscal Year 1969

Purposes	Amounts, Fiscal Year 1969 (millions of dollars)					Matching Requirement (Maximum Federal Share)	Special Provisions Regarding State Grant Mechanisms
	Authorization	Allotment to the States	Transfers To + From -	Expenditures by States and Localities			
				Federal Funds	State/Local Funds		
V[illegible]onal Education Act of 1963	225.0	198.2	+29.3	176.6	948.4	100%	
(1) Vocational education for persons attending high school				70.6	380.4		
(2) Vocational education for persons who have completed or left high school and who are available for full-time study in preparation for entering the labor market;				52.8	200.0		25% for vocational education for persons who have completed or left high school and who are available for full-time study in preparation for entering the labor market; or construction of area vocational education school facilities.
(3) Vocational education for persons (other than persons who are receiving training allowances under the Manpower Development and Training Act of 1962, the Area Redevelopment Act, or the Trade Expansion Act of 1962), who have already entered the labor market and who need training or retraining to achieve stability or advancement in employment;				10.9	61.0		
(4) Vocational education for persons who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program;				7.9	26.0		
(5) Construction of area vocational education school facilities;				50.9	70.4		
(6) Ancillary services and activities to assure quality in all vocational education programs, such as teacher training and supervision, program evaluation, special demonstration and experimental programs, development of instructional materials, and State administration and leadership, including periodic evaluation of State and local vocational education programs and services in light of information regarding current and projected manpower needs and job opportunities.				34.4	90.8		3% for ancillary services and activities to assure quality in all vocational education programs. 10% for research and training programs and experimental, developmental, or pilot programs designed to meet the special vocational education needs of youths, particularly youths in economically depressed communities who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education programs.
Vo[illegible]nal Education Act of 1917 (Sm[illegible]-Hughes Act) 2/		7.3	- 4.2	3.1	15.6	100%	Paying the salaries of teachers, supervisors, or directors of agricultural subjects.
To provide for the promotion of vocational education and cooperation with States in paying salaries of teachers, supervisors, and directors of vocational education in:							
(1) agriculture,	3.0	3.0	- 1.8				
(2) trade, industrial, and home economics,	3.0	3.1	- 1.8				
(3) teacher training.	1.0	1.1	- .5				
Vocational Education Act of 1946 (George-Barden Act) 3/		49.9	+.3 -12.8	24.8	174.5	100%	
Title I				16.8	152.5		Assisting in maintaining adequate programs of administration, supervision and teacher training, for salaries and necessary travel expenses.
To assist the States and Territories in vocational education in:							
(1) agriculture,	10.0	10.3	- 5.5				
(2) home economics,	8.0	8.1	+.2 - .7				
(3) trade and industrial,	8.0	8.2	+.1 -4.8				
(4) distributive,	2.5	2.6	-1.5				
(5) fishery trades education.	.4	.4	- .2				
For administration, supervision, and teacher-training programs; for salaries and travel; for securing data and information; for programs for out-of-school youths and apprentices; and for equipment and supplies.							
Title II	5.0	5.0	- 3.0	2.0	8.7		For practical nurse training, research and planning.
To provide assistance to the States for practical nurse training and training in other health occupations.							
Title III	15.0	15.0	- 9.5	5.3	13.3		for: maintenance of adequate programs of administration, supervision, and teacher-training; salaries and necessary travel expenses of State or local school personnel, including teachers, coordinators, supervisors, vocational guidance counselors, teacher-trainers, directors, administrators, and others; purchase, rental, or other acquisition, and maintenance and repair, of instructional equipment; securing necessary educational information; training and work-experience training programs for out-of-school youths; determining the need for, and planning and developing, area vocational education programs.
To amend the Vocational Education Act of 1946 to assist States to train individuals for employment as highly skilled technicians necessary for national defense.							
TOTAL		255.4					

1/ [illegible]th-Hughes Act and George-Barden Act allotments are based upon population, Eighteenth Census of the United States, 1960. Vocational Education Act of 1963 allotments are based upon average per capita income and State populations of various age groups. For method of allotment see the Acts.

2/ Includes appropriation to Puerto Rico under separate Act.

3/ Includes $80,000 for American Samoa, $80,000 for Guam, and $40,000 for Virgin Islands allotted by law to total field of vocational education.

4/ This data obtained from Vocational & Technical Education Annual Report/Fiscal Year 1969, U.S. Department of Health, Education, and Welfare, Office of Education, Bureau of Adult, Vocational, and Technical Education.

Source: U.S. Office of Education, "Expenditure of Funds for Vocational Education by Purpose," O.E. Form 4043. Washington, D.C., 1971.

The overwhelming proportion of Federal funds for Vocational Education are provided by the Vocational Education Act of 1963. Likewise, State and local expenditures reflect, by and large, the same distribution. The reapportioning of funds between the various Acts authorized by the 1963 legislation also reflects this pattern with almost $30 million of Federal funds being shifted by the States into purposes specified by the Vocational Education Act of 1963. The largest sums were shifted out of the George Barden Act appropriations which were provided mainly for administration, supervision, and teacher training.

2. Description of State Grant Mechanism: 1969

A basic search through the documents[1/] renders impossible a determination of the precise functioning of the States grant mechanism in Fiscal Year 1969. Specifically, an examination of the 1969 State plans reveals only limited insights into the operation of the mechanism, even though the Vocational Education Act of 1963 stipulated that a State, in its State plan, must set forth the policies and procedures to be used in allocating its Federal funds among the various purposes of the Act, and must designate, in allocating Federal funds to local education agencies, which policies and procedures would insure that due consideration would be given to such criteria as current and projected manpower needs and job opportunities.[2/]

This lack of tangible insights can be attributed to the fact that even though the States were required by the 1963 Act to describe the policies and procedures to be used in allocating Federal funds among the six purposes of the Act, they merely

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1/ Notably an intensive search through the Congressional Hearings on the 1968 Vocational Education Amendments and the State Plans for Vocational Education in operation during FY 1969.

2/ U.S. Congress House of Representatives, Committee on Education and Labor, "Vocational Education Act of 1963" in A compendium of Federal Education Laws, 90th Congress, 1st Session, May 1967, Part IV, p. 236.

"parroted back" considerations noted in the Vocational Education Act of 1963. For example, Arizona, in its State plan, stated that in allocating funds among the purposes of the Act, due consideration would be given to a) "the vocational needs of all persons in all communities in the state," and b) "results of periodic evaluations of state and local vocational education programs and services of...current and projected manpower needs and job opportunities...[and the] need for maintaining, extending, and improving existing programs, and developing new programs of vocational education."3/

In addition, the States in general noted that in distributing funds among the LEAs, they used policies and procedures that will serve the purposes of the VEA '63 Act--again parroting back Federal requirements. For example, the Indiana State Plan claims that Indiana will try to insure "that federal funds are not used to supplement state and/or local funds being currently used for vocational education, but rather will contribute to the efficient use of State and/or local funds for programs" that will, in essence, provide ready access to vocational education of high quality suited to the needs, abilities and interests of all persons in all communities.4/

The only tangible insight into the functioning of the State grant mechanism, garnered from the 1969 State plans, is the revelation that the States use a proposal approach in distributing funds for the various purposes among the local education agencies. Beyond this, however, information appears vague. For although the States indicate that they do use certain general criteria in determining fund allocation, they fail to designate whether the criteria receives equal weighting or whether they are assigned different weights. As a result, the precise method used in fund allocation can not be determined.

3/ Arizona State Plan for Vocational and Technical Education, 1964-1965. (Extended to FY 1969), Section 1.32.

4/ Indiana State Plan for Vocational and Technical Education, 1964-65, (Extended to FY 1969), Section 1.32.

3. The Pattern of Expenditures in 1969

Table II.2 presents total Federal, State and local expenditures for vocational education by function for Fiscal Year 1969. About 67 percent of the total funds were spent for instruction. About half of the total monies spent for Supervision were contributed by Federal funds and a substantial proportion of expenditures for Instructional Equipment, Research, and Teacher Education came from Federal sources. The Federal Government's minimal proportionate fiscal contribution was for Instruction and for Vocational Guidance. In both functions only about fifteen percent of the total funds spent were Federal funds.

The ratios of total State/local to Federal Vocational Education expenditures for 1969 by State is presented in Table II.3. The smallest ratio of State/local to Federal expenditures was 1.6 in South Dakota while the largest ratio reflecting the State/local contribution to Vocational Education was 12.7 in New York State. The average ratio of State/local to Federal expenditures was 3.8.

In the majority of the States, State and local funds constituted between two and one-half and five times the Federal contribution to vocational education. In only 12 States were State/local expenditures for Vocational Education more than 5 times the State's Federal allotment--Connecticut, Delaware, Florida, Iowa, Massachusetts, New Hampshire, New York, Oregon, Pennsylvania, Utah, Washington, and Wisconsin. By contrast, in only nine States did expenditures for Vocational Education by the States and local jurisdictions account for less than two and one-half times their Federal allocation -- Arkansas, Hawaii, Idaho, Louisiana, Mississippi, Nebraska, New Mexico, South Dakota, and Tennessee.

Table II.2

Total Expenditures and Percentages of Total Expenditures for Vocational Education by Function for Fiscal Year 1969 (In Thousands) *

	Total	%	Federal	%	State & Local	%
Administration	83,811	6	21,803	26	62,007	74
Supervision	21,315	2	10,402	49	10,912	51
Teacher Education	20,552	2	7,974	39	12,578	61
Instruction	923,325	67	127,657	14	759,668	86
Research	7,709	1	2,969	39	4,340	62
Instructional Equipment	69,299	5	28,812	42	40,487	59
Construction	216,635	16	50,909	24	165,725	77
Vocational Guidance	26,107	2	4,146	16	21,960	84
TOTAL	1,368,756	101**	354,676	19	1,114,080	81

* Vocational Technical Educative Annual report, Fiscal Year 1969. Tables 29 and 38.

** Figures will not add to 100% due to Rounding.

Table II.3

Matching Ratios for Federal and State/Local Vocational Education Expenditures, by State, 1969 (In Thousands)

State	Federal Funds	State/local Funds	Matching Ratio
Alabama	5,898	19,008	3.2
Alaska	533	2,064	3.9
Arizona	2,183	6,428	2.9
Arkansas	3,405	6,753	2.0
California	17,985	62,864	3.5
Colorado	2,517	7,375	2.9
Connecticut	2,727	20,568	7.5
Delaware	622	3,417	5.5
Dist. of Col.	769	1,962	2.5
Florida	7,331	37,322	5.1
Georgia	7,170	21,793	3.0
Hawaii	1,029	2,108	2.0
Idaho	1,240	3,015	2.4
Illinois	10,659	28,765	2.7
Indiana	6,362	17,395	2.7
Iowa	4,227	23,204	5.5
Kansas	3,140	8,588	2.7
Kentucky	5,603	16,708	3.0
Louisiana	5,503	10,635	1.9
Maine	1,539	4,639	3.0
Maryland	4,085	19,601	4.8
Massachusetts	5,473	36,906	6.7
Michigan	9,582	34,980	3.7
Minnesota	5,084	23,360	4.6
Mississippi	4,401	9,057	2.1
Missouri	6,083	23,830	3.9
Montana	1,121	2,840	2.5
Nebraska	2,200	4,271	1.9
Nevada	596	2,204	3.7
New Hampshire	975	5,356	5.5
New Jersey	6,449	25,896	4.0
New Mexico	1,590	3,267	2.1
New York	17,023	216,999	12.7
North Carolina	8,972	41,141	4.6
North Dakota	1,313	3,318	2.5
Ohio	12,377	42,255	3.4
Oklahoma	3,796	13,252	3.5
Oregon	2,567	13,217	5.1
Pennsylvania	14,045	87,602	6.2
Rhode Island	1,125	2,817	2.5
South Carolina	4,706	15,990	3.4
South Dakota	1,313	2,109	1.6
Tennessee	6,543	13,770	2.1
Texas	15,296	48,184	3.2
Utah	1,476	8,717	5.9
Vermont	738	3,360	4.6
Virginia	6,874	22,783	3.3
Washington	3,724	21,237	5.7
West Virginia	3,052	8,173	2.7
Wisconsin	5,610	39,790	7.1
Wyoming	621	1,700	2.7

Source: U.S. Office of Education. "Expenditures for Vocational Education by Source, Purpose, and Level," O.E. Form 3131, Washington, D.C., 1971.

B Federal Aid for Vocational Education in 1971

1. State Grant Mechanisms

a. Characteristics

The 43 State plans which were available at the time this report was prepared, were examined for the existence of the following characteristics.

(1) Did the State plan follow the Guideline Example presented by the Office of Education 5/ or did it employ a mathematical formula for distribution of funds as suggested as an alternative by the Guideline?

(2) Are Federal funds for disadvantaged and handicapped distributed through the use of a formula or are they distributed through separate allotments specifically designated for them?

(3) Do the States employ at least each of the four formula criteria (vocational education needs, manpower needs, ability to pay, and excess costs) as prescribed by the 1968 Amendments for the distribution of Federal funds to LEA's?

(4) Do the States employ additional criteria other than the four specified by VEA '68 in distributing Federal funds to LEA's?

(5) Is the final decision regarding the distribution of Federal vocational education funds to LEA's based on subjective evaluation at the State level?

(6) Do any other criteria used in State distribution of Federal vocational education funds subordinate one or more of the four formula criteria prescribed by the 1968 Amendments?

5/ Guide for the Development of a State Plan for the Administration of Vocational Education under the Vocational Education Amendments of 1968. U.S. Department of Health, Education, and Welfare, Office of Education, Division of Vocational and Technical Education, May, 1970.

(7) Are there any basic assumptions underlying the State plans for distribution of Federal vocational education funds that nullify the importance of the four formula criteria prescribed by the 1968 Amendments?

(8) What is the relative importance placed upon each of the four formula criteria (as expressed in percentages) in the distribution of Federal funds to LEA's?

(9) Do the distribution of formulas favor either urban or rural areas?

(10) Does the State grant mechanism favor established programs?

(1) Example vs. formula. Section 3.27 of the Office of Education Guide for the Development of State Plan 6/ requires that the State plan contain a description of the method by which the State Board will apply specific criteria in determining (1) which local applications (LEA) will be approved and (2) the percentage amount of the Federal share of the total cost of the programs, services and activities proposed in each approved local application.

It further states that the method may either be a mathematical formula or a scale of weights to be assigned to each local application in terms of each of the four criteria specified in the 1968 Amendments. An assessment was made to determine the number of States which have adopted each of these procedures in developing their State plans.

Six of the State plans that were examined contained a procedure involving a weighting system similar to the example given in the Office of Education Guide. Twenty of the State plans contained mathematical formulas of varying complexity that required hard-data inputs for implementation. Seventeen of the State plans examined

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6/ Ibid

contained a system that combined features of both the weighting and formula procedures. Most of the State plans that were examined contained rationale to support their respective allocation procedures. In no instance did there seem to be a radical departure from the two alternative distribution procedures prescribed by the Office of Education Guidelines.

(2) Disadvantaged and Handicapped: Formula vs. Allocation Procedures. In 25 of the State plans that were examined, procedures for distribution of Federal vocational education funds to the handicapped and disadvantaged were included in the distribution formula. In all of these plans, the formula encompassed all target populations in the distribution of Federal vocational education funds. Eighteen of the State plans contained provisions for distributing Federal vocational education funds to Disadvantaged and Handicapped groups through separate allocation procedures which specified the percent of funds to be distributed to these populations and which contained a variety of criteria for identifying these groups. This definitional problem still plagues State administrators (see Chapter III, Section C).

(3) Use of Formula Criteria Specified in Vocational Education Amendment of 1968. All forty-three State plans contained the four formula criteria specified in the 1968 Vocational Education Amendments within their formula or weighting procedures for the allocation of Federal vocational education funds. In a number of cases, because of differences in formatting and weight distribution, the criteria were not immediately identifiable. But further investigation revealed their inclusion in all of the State plans, either stated as put forth in the 1968 Amendments or in a form readily identifiable as equivalent to the original Statement of Criteria.

(4) Use of "Other" Criteria. Fifteen of the State plans examined contained additional criteria other than the four specified in Vocational Education Amendment of 1968. In some instances these other criteria were component parts of the four formula criteria, but where they are reported as separate entities within the fifteen State

plans, it is because they have identified as such and assigned specific weights which accord them greater importance. The following table presents a breakdown of these other criteria, and their frequency of inclusion by the fifteen State plans.

Other Criteria

Criteria	Frequency of Inclusion
1. Economically Depressed Area	7
2. High Dropout Rate	4
3. Existence of Pilot Projects	4
4. Soundness of Educational Plan	1
5. Comprehensiveness of Educational Plan	1
6. Appropriateness of the Program	1
7. Evaluation of Programs	1
8. Results of Periodic Program Evaluation	1
9. Quality of Programs	1
10. Community Support	1
11. Extent of Local Effort	1
12. High Youth Unemployment	1
13. Evidence of Changes or Growth	1
14. Occupational Growth Potential	1
(a) Extent to which program prepares student for Higher Technical Education	

Each of these other criteria is accorded a specific weight reflecting its importance in the total distribution mechanism whenever it is included in a State plan. With the exception of criteria 1 and 2, it is not possible to determine from the State plans the proportions of quantitative data and subjective evaluation that enter into the mechanism of distributing Federal vocational education funds to target populations at the State level.

(5) Subjective Evaluation at the State Level. As stated previously, it was not possible to determine from the State plans, the amount of subjective evaluation that took place at the State level in making a final decision regarding the distribution of Federal vocational education funds to local education agencies. In twenty-one of the State plans investigated, where some variation of the Office of Education Guideline example was employed, the plans called for subjective evaluation on the part of State level officials in the initial stage of implementing the distribution mechanism. This subjectivity is introduced when a person or persons have to assign a specific weight to a criterion item before it is either tallied with other criteria items or used as a data input to a distribution formula. In many instances the subjective weighting system is unavoidable as hard data attributes for a specific criterion are unavailable or unobtainable, but the subjective basis for obtaining data inputs to the formulas is worth noting when considering the validity of the results obtained from the use of formulas in distributing Federal vocational education funds.

(6) Subordination of Four Formula Criteria by Other Criteria. In only two State plans did other criteria seem to subordinate any of the four formula criteria prescribed in Vocational Education Amendment of 1968. These other criteria were Soundness of Educational Plan and Extent of Local Effort. In neither of these instances does the State plan present a detailed explanation of what constitutes these criteria. It is felt that they consist of some "mix" of hard data and subjective evaluation. In three State plans, Economically Depressed Areas and High Dropout Rates are given weights equal to or greater than one or more of the four formula criteria prescribed by the Vocational Education Amendment of 1968, but since these two criteria are normally component parts of two of the four formula criteria they do not constitute a significant departure from the standard use of the four formula criteria

(7) Basic Assumptions Underlying State Plans. As far as could be determined, there were no basic assumptions underlying any of the State plans that would nullify the importance of any of the four formula criteria as determinants in the mechanism of distributing Federal vocational education funds to local education agencies.

(8) Relative Importance of the Four Formula Criteria. It was possible to obtain a value reflecting the relative importance placed on each of the four formula criteria in thirty-nine of the State plans that were examined. These figures were calculated from the data contained in Appendix C which indicate the weight assigned by each state to the four formula criteria specified in the Vocational Education Act and to other criteria selected by the states. For each criterion, the weights assigned by the states were totalled and then divided by 39 (the number of states for which data were available). This calculation provides a percentage figure which reflects the average relative importance which the states assign to the various criteria. These percentages are presented below.

Formula Criteria	Relative Importance
Manpower Needs	22%
Vocational Education Needs	35%
Ability to Pay	21%
Excess Costs	14%
Other Criteria	8%

It can be seen that there was wide dispersion in the relative importance of all of the four formula criteria throughout the State plans that were investigated. It can be stated, however, that in most of the State plans, Vocational Education Needs was the criterion that was considered most important as demonstrated by the relatively heavy weight it received compared with all other criteria used as inputs to the mechanism of distributing Federal vocational education funds to local agencies. It was further determined that in most State plans, Vocational Education Needs reflected the problems of areas with high dropout rates, handicapped and disadvantaged populations, low income families and economically depressed areas. To this extent, it would seem that there was an attempt on the part of the State grant mechanism to reflect the priorities expressed in the 1968 Amendments.

(9) Formula Bias Toward Urban or Rural. None of the plans indicated a bias toward rural parts of the State while two showed a heavy emphasis on urban areas by making certain basic assumptions where hard data could not be obtained. Manpower needs and job opportunities are assumed greatest where the largest labor force can be found, with an assigned weight of 25% for this criterion in both State formulas. Vocational Education Needs are assumed to be greatest in the first State where the concentration of people is the greatest and in the second State the five countries where the largest number of secondary students is found. A weight of 25% and 35% respectively has been assigned to this criterion in the State formulas. As can be seen, half or more of the formula weight in these two States has been placed on criteria which favor urban areas without being sufficiently offset by the remaining two major criteria.

(10) Bias Toward Established Programs. Two States have defined the formula criteria in such a way as to greatly favor existing programs rather than new program needs. In one State, 50% of the available funds are distributed on a per pupil vocational enrollment basis with the remainder being distributed according to the variables

incorporated into the formula. Funding in the other State is based upon the manpower needs presently being met by a LEA, the present vocational enrollment in all levels of school and the average per student expenditure of each LEA. Those LEA's with the highest ranking within the State receive the largest funding for each category.

b. Reallocation of Federal Funds.

One of the imminent issues surrounding the State grant mechanism is whether the States are too conservative in their initial allotments to local educational agencies. A survey of ten (10) States indicated that two (2) States did not have a procedure of reallocating Federal funds among their respective local educational agencies. One State indicated that it had a small sum in two (2) accounts (Part C and Part D of Vocational Education Amendment of 1968) which was reallocated among those LEAs that could justify its use. This was the only State of the 10 States surveyed which did not have an unobligated balance for either Fiscal Year 1970 or Fiscal Year 1971.

Three (3) of the 10 States reallocated set-aside funds for the handicapped and disadvantaged. These funds were initially allocated to local educational agencies that had applied for them and allotments were made utilizing the State's formula. Upon notifications to the State office that the LEA could not use part or all of the funds allocated for justified reasons, the State notified all LEAs which had applied for Federal funds with respect to availability of additional funding. The procedure for reallocating Federal funds was essentially the same as the initial funding. This procedure was followed both when the State used a formula for allocating Federal funds among LEAs and when the State used a scale of values.

Four (4) of the ten (10) States indicated that excess Federal funds were reallocated primarily for Part B purposes. One (1) of the four indicated that there was usually a sizeable amount of unexpended funds for adult programs which, for a variety of reasons, were either not started or the enrollment was lower than had been anticipated

Secondary school districts were given first preference in reallocating these funds. The other two (2) of the four States reallocated Federal funds to supplement postsecondary vocational education programs. The rationale for giving postsecondary education first preference was that initially many of the LEA's budgets were cut in order to stay within the State budget and that these institutions had justified use of Federal funds to purchase equipment and supplies. The later State of the four used unexpended funds for remodelling or acquiring facilities on the secondary level.

In summary, there is no special State grant mechanism specifically designed to handle reallocation of Federal funds among the ten (10) sampled States. There is, in eight (8) of the States which do reallocate Federal funds, a slight modification or adjustment made in the original grant formula; this varies from State to State because of the variables inherent in the separate formulae. There is also a tendency by those States that do reallocate Federal funds to use these funds for purposes which can be justified by initial applications submitted and revised and/or new applications whose purposes can be implemented during the period for which funds are obligated.

c. The Perceptions of State-Local Officials Based on Field Interviews.

One of the primary goals of the Vocational Education Amendments of 1968 was to provide a framework within which each State would have an opportunity to develop an equitable method for allocating Federal funds among its local educational agencies, so that those persons and communities with the greatest needs would receive first priority. Of the ten (10) sampled States, neither the ten (10) State directors of vocational education nor the 43 local school officials in charge of vocational education disagreed with the concept. Yet, after nearly three (3) years of manipulating variables within each of the four basic criteria mandated in the Vocational Education Amendments of 1968 (manpower and vocational needs, relative

ability to pay and excessive cost of programs and activities) there was not a completed operational formula which could be considered as a model found among the ten (10) States. The difficulties which these States experienced in developing an equitable method of allocating funds among their respective local educational agencies falls within three (3) categories: (1) the problem of establishing a proper mix of variables within each criterion which would be compatible with the different methods used by local school districts, (2) a lack of a systematized method of collecting and updating manpower and education information, and (3) inadequate number of competent professional staff. Notwithstanding these difficulties, there is an optimistic view held by most State and local officials which is indicative of a trust that an equitable method of distributing funds among local educational agencies will become operational in its fullest form within about three years.

The local educational agencies' perceptions of the State grant mechanism are resultant, to a great extent, of difficulties experienced by the States in establishing and implementing the granting mechanism. As depicted in Table II.4, 12 or about 28% of the 43 local administrators interviewed indicated that they were satisfied with the State grant mechanism as a means of distributing Federal vocational education funds. These responses varied within the State as well as among the sampled States. Another 19, or 44.2% of the local officials of vocational education programs disapproved of the way in which the grant mechanism was either constructed or administered. There were an equal number of officials from both secondary schools and community colleges that disagreed. There were 7 or 16.3% of the officials who indicated they did not understand the grant mechanism and one official refused to comment because of a lack of knowledge as to what was required in the law. About 9.3% of the local officials indicated they were not aware of a State grant mechanism.

There was no significant difference among the negative or positive responses of the officials of vocational education programs by type of institutions i.e., secondary,

Table II. 4

Local Education Agencies' Perceptions of
Their Respective State Grant Mechanisms

	No. of LEA Responding by Type of Institution				
	Secondary	Area Voc-Tech Schools	Community Colleges	4 yr. Colleges	Sp. Sch. for Handicapped
A. Approve	4	3	3	1	1
B. Disapprove, because the State Grant Mechanism:					
1. lacks equitable method of distributing funds to inner city school districts	4				
2. fails to take into consideration variations in cost of different vocational education programs	1				
3. is meaningless in that State is not organized to implement provision in VEA-68			1		
4. is meaningless in that relative ability to pay and high dropout rate are not adequately considered			1		
5. is too subjective and personal			1		
6. unworkable as currently designed			1		
7. places limitations upon percent of funds that can be spent on a given program		1	2		
8. arbitrary red line items in local application without consultation with LEA	1				
9. prohibits use of funds for expansion due to LEA's inability to meet matching requirements			1		
10. excessive verification and reporting discourages small school districts to apply for federal funds	1				
11. fails to give due consideration to excessive cost and facilities in economically depressed areas	2	1	2		
C. DO NOT UNDERSTAND State Grant Mechanism	5	1	1		
D. DO NOT UNDERSTAND VEA-68, therefore cannot comment on State Grant Mechanism	1				
E. NOT aware of State method of allocating funds-State supervisors have continued to make the decisions	2	2			
Total	21	8	13	1	1

area vocational-technical schools and community colleges with respect to the State grant mechanism. Despite the fact that over half of the local educational agencies disagreed with certain aspects of their respective State grant mechanisms, there was a general consensus that such a method of allocating funds was better than procedures used in the past.

2. The Pattern of Expenditures in 1971.

Table II.5 presents a percentage breakdown total Federal, State and Local expenditures for Vocational Education by function for Fiscal year 1971. It was not possible to separate State, Local and Federal Contributions of total expenditures from the State annual reports for 1971 so only total figures are presented here. Total expenditures for 1971 were almost twice those of 1969 reflecting in part, the increased allotments resulting from the 1968 amendments. Functional breakdowns are somewhat different between the 1969 and 1971 data but a number of comparisons can be made. A greater proportion (80%) of total vocational education expenditures went for Instruction in 1971 than went for the same function in 1969. Whereas Construction was second in total expenditures for 1969 in terms of dollar volume, it ranked fifth in 1971. This was not unexpected in view of what is known of previous and current programs in this area over the past several years. Guidance and Counseling increased fifty percent in terms of dollar volume expenditure to total expenditures from 1969 to 1971, which reflects Federal priorities in this area. Overall, dollar volume increased for all functional areas that could be compared between the years 1969 and 1971. The ratios of total State/local to Federal expenditures for vocational education in 1971 is presented in Table II.6. The smallest ratio of State/local to Federal expenditures was 1.6, reported for three States, while the largest ratio reflecting the State/local contribution to vocational education was 11.5. There was a slight upgrading in the overall average ratios for State/local to Federal contributions to total vocational education expenditures from 1969 to 1971, from 3.8 to 4.2. While a number of the

larger States shifted positions slightly in terms of their rank with regard to their ratios of State/local to Federal expenditures for vocational education there were no dramatic changes in the overall picture in this regard. In fifteen States, State/local expenditures were more than five times their Federal allotments. Most of the States in this category in 1969 remained in 1971 with the exception of New Hampshire, Oregon, and Washington which fell below this level in 1971. Illinois, Maryland, Minnesota, North Carolina, Ohio, and Vermont, however, were added to this list in 1971. With regard to those States where State/local expenditures were less than two and one-half times their Federal allotment; Mississippi, Nebraska, and Tennessee raised their expenditures above this level and Indiana, Michigan, Nevada, North Dakota, South Carolina, and West Virginia fell below this level between 1969 and 1971.

Table II.5

A Percentage Breakdown of
Total Expenditures for Vocational Education, by Function
for Fiscal Year 1971

	Percent
Administration, Supervision and Evaluation	7
Teacher Education	1
Instruction	80
Research and Demonstration	-
Instructional Equipment	7
Construction	1
Guidance and Counseling	3
Curriculum	-

Source: U.S. Office of Education, "Expenditures for Vocational Education by Source, Purpose, and Level," O.E. Form 3131, Washington, D.C., 1971.

Table II.6

Matching Ratios, State/Local to Federal Funds, by Part of Act, by State, 1971

State	Set-asides A	Target Populations B	Research Training C	Exemplary Programs D	Consumer Education F	Cooperative Programs G	Work-Study Programs H	Total
Alabama	0.1	3.2	0.2	0.0	9.3	0.4	0.2	3.0
Alaska	0.8	5.6	2.5	2.6	16.4	1.0	4.4	4.3
Arizona	0.1	2.5	0.4	0.0	10.7	1.8	0.3	2.6
Arkansas	0.1	1.6	0.5	0.1	9.0	0.1	0.3	1.7
California	INA	5.7	INA	0.1	INA	INA	INA	INA
Colorado	1.1	5.0	0.1	0.4	10.1	0.2	0.3	4.3
Connecticut	0.3	8.3	1.2	0.2	17.1	0.4	0.3	7.3
Delaware	0.0	8.8	0.1	0.0	1.2	1.4	0.3	5.5
Dist. of Col.	INA	INA	INA	INA	INA	INA	INA	INA
Florida	0.0	5.7	1.9	0.0	13.8	0.0	0.2	5.2
Georgia	0.0	3.2	0.2	0.0	9.2	0.6	0.5	3.2
Hawaii	INA	INA	0.2	INA	INA	INA	INA	INA
Idaho	0.1	2.6	0.1	0.0	10.5	0.0	0.3	2.4
Illinois	8.5	11.3	0.6	2.5	6.3	2.6	1.3	9.8
Indiana	0.1	1.7	0.3	2.0	6.7	2.8	0.6	1.8
Iowa	0.0	6.1	0.7	0.0	8.9	0.2	0.7	5.3
Kansas	0.2	2.8	0.2	0.0	4.2	0.4	0.3	2.5
Kentucky	0.0	3.5	0.3	0.0	10.5	0.0	0.3	3.4
Louisiana	0.1	1.4	0.4	0.0	7.1	0.9	0.5	1.6
Maine	0.0	4.1	0.2	0.0	6.3	0.0	0.7	3.3
Maryland	0.5	10.0	0.1	0.3	39.6	2.3	0.2	9.7
Massachusetts	0.0	13.0	0.4	10.1	1.5	0.9	2.2	11.5
.chigan	0.0	2.9	0.2	0.3	2.8	0.1	0.8	2.4
Minnesota	0.4	4.2	0.3	0.0	9.0	1.3	0.6	5.1
Mississippi	0.3	2.8	1.3	0.0	7.6	0.4	0.3	2.7
Missouri	0.0	3.0	0.3	0.1	10.2	0.7	0.3	2.9
Montana	0.1	3.2	0.0	0.1	7.7	0.5	0.5	2.8
Nebraska	0.0	3.1	0.1	0.0	7.6	0.0	0.2	2.7
Nevada	1.6	1.7	0.3	0.1	1.8	0.1	0.4	1.2
New Hampshire	0.0	3.3	0.3	0.2	11.5	0.0	0.2	2.6
New Jersey	0.7	2.6	0.3	3.0	0.8	1.1	1.1	2.3
New Mexico	0.2	2.2	0.3	0.2	9.4	0.6	0.3	2.2
New York	0.0	2.2	0.2	0.0	18.7	0.0	1.3	9.4
North Carolina	0.0	6.4	0.3	0.0	2.4	0.1	0.2	5.5
North Dakota	0.0	2.4	0.4	0.0	9.9	0.1	0.5	2.1
Ohio	0.0	8.8	0.1	0.0	14.9	0.1	0.3	7.8
Oklahoma	0.0	4.1	0.4	0.0	8.9	1.0	0.3	3.8
Oregon	0.3	5.7	0.3	0.4	0.2	0.2	0.7	4.4
Pennsylvania	0.6	8.0	0.4	0.1	1.0	0.5	0.6	6.8
Rhode Island	0.4	6.0	0.6	0.1	4.6	0.3	0.3	4.1
South Carolina	0.0	2.2	0.5	0.1	1.0	0.0	0.5	1.9
South Dakota	0.0	1.7	0.4	0.0	8.7	0.0	0.3	1.6
Tennessee	0.0	2.9	0.3	0.0	6.9	0.0	0.2	2.8
Texas	0.0	3.7	0.1	1.7	16.5	0.0	0.2	4.1
Utah	0.4	6.5	0.3	0.0	14.1	0.0	0.5	5.4
Vermont	0.0	10.8	0.2	0.0	14.1	0.0	0.3	7.5
Virginia	0.0	2.9	0.1	0.0	10.1	0.0	0.2	3.0
.shington	1.1	5.6	1.7	1.0	12.8	1.5	1.1	5.0
West Virginia	0.0	1.7	0.4	0.0	4.6	0.0	0.3	1.7
Wisconsin	0.0	8.0	0.2	0.5	4.6	0.3	0.3	6.6
Wyoming	0.6	5.5	0.3	0.0	16.3	0.3	0.4	3.9

Source: U.S. Office of Education, "Expenditures for Vocational Education by Source, Purpose, and Level," O.E. Form 3131, Washington, D.C., 1971.

3. The Allocation of Federal Funds to Large Cities, 1968 and 1971

If the States have changed their grant mechanisms since the 1968 Amendments in substance as well as form then there should have been changes in the shares of Federal vocational education funds received by local educational agencies within the States. To test for changes in the shares of Federal funds received by LEAs since the 1968 Amendments have become effective the following analysis is presented.

Data are available in the 1971 State annual reports on file with the U.S. Office of Education showing the distribution of Federal vocational education in the school systems in cities with populations of more than 250,000. Not all of these reports are complete. For cases where the data were available their allocations of Federal funds have been converted into fractional shares of the total amount of Federal vocational education funds in each State for 1971 and are shown in Table II.7. For comparison, 1968 data for the same LEAs are also shown. The 1968 data has been taken from the ELSEGIS reports as published by the U. S. Office of Education. In those reports local school agencies list the funds they receive under the several Federal aid programs. The amounts received were then compared with the total level of spending of Federal vocational education monies in the respective States.

As can be noted from Table II.7 the share of Federal vocational education funds received by practically all urban school systems changed significantly between 1968 and 1971. In only 9 of 37 cases was the city share in 1971 within one percentage point of what it had been in 1968. Aggregate amounts have also changed because of the higher level of Federal funding in 1971. In most cases, 24 out of the 37, the shares have increased. Presumably this is the result of changed State grant mechanisms,

Table II.7

Local Expenditures of Federal Vocational Education Funds, Total and as a Percent of Statewide Expenditures of Federal Vocational Education Funds, Selected Urban School Systems, 1968 and 1971

School System	1968		1971		
	Expenditures of Federal Funds	Percent of Statewide Expenditures of Federal Funds	Expenditures of Federal Funds	Percent of Statewide Expenditures of Federal Funds	1970 Population as a Percent of State Total
Alabama					
Birmingham	$663,400	10.9	$1,190,128	13.2	8.7
Huntsville	192,200	3.2	293,168	3.2	4.0
Mobile County	235,500	3.9	615,724	6.8	5.5
Montgomery	55,400	.9	596,288	6.6	3.9
Georgia					
Atlanta	987,200	13.1	1,263,716	11.3	10.8
DeKalb County	410,200	7.5	303,300	2.7	9.0
Illinois					
Chicago	1,153,700	10.3	2,664,316	15.7	30.3
Indiana					
Indianapolis	493,700	7.5	389,944	3.9	14.3
Kentucky					
Louisville	77,400	1.4	781,323	12.0	11.2
Massachusetts					
Boston	1,175,300	20.6	242,009	2.5	11.3
Michigan					
Detroit	2,853,200	27.8	702,308	4.6	17.0
Minnesota					
Minneapolis	662,500	12.6	600,995	7.6	11.4
St. Paul	812,700	15.4	393,463	4.9	8.1
Missouri					
St. Louis	442,100	6.9	654,730	7.0	13.3
Kansas City	179,700	2.9	684,265	7.4	10.8
Nebraska					
Omaha	634,400	28.1	523,211	17.2	23.3
New Mexico					
Albuquerque	41,100	2.5	490,367	17.2	24.0
New Jersey					
Jersey City	3,600	.5	101,401	1.2	3.6
Newark	176,500	2.6	559,044	4.6	5.3

Table II.7 (continued)

School System	1968 Expenditures of Federal Funds	1968 Percent of Statewide Expenditures of Federal Funds	1971 Expenditures of Federal Funds	1971 Percent of Statewide Expenditures of Federal Funds	1970 Population as a Percent of State Total
Ohio					
Dayton	$ 25,800	.2	$939,939	4.4	2.3
Toledo	376,200	2.9	663,241	3.1	3.6
Akron	112,700	.9	508,529	2.4	2.6
Cincinnati	68,900	.5	750,116	3.5	4.3
Cleveland	417,000	3.3	1,334,682	6.3	7.1
Oklahoma					
Oklahoma City	$136,600	3.9	817,339	14.1	14.3
Tulsa	184,500	4.7	560,716	9.6	13.0
Pennsylvania					
Pittsburgh	669,800	4.6	1,291,161	6.7	4.4
Philadelphia	175,000	1.2	1,871,947	9.6	16.5
Tennessee					
Memphis	565,100	8.5	1,328,205	15.6	6.6
Texas					
El Paso	200,400	1.3	177,096	.9	2.9
Ft. Worth	690,400	4.4	161,859	.8	3.5
Dallas	227,700	1.4	333,851	1.6	7.5
San Antonio	89,900	.6	77,841	.4	5.8
Austin	67,600	.4	27,007	.1	2.3
Virginia					
Norfolk	264,100	3.8	403,899	4.1	6.6
Washington					
Seattle	163,100	4.1	1,064,701	14.7	15.6
Wisconsin					
Milwaukee	254,200	4.4	1,494,702	17.9	16.2

Source: For 1968, U.S. Office of Education, Statistics of Local Public School Systems, Finances, 1967-68 (Washington, D.C.: GPO, 1970); for 1971, Annual Financial and Statistical State Reports on file with the U.S. Office of Education, Bureau of Adult, Vocational and Technical Education.

particulary the special emphasis on serving disadvantaged students who, in many cases, are concentrated in urban areas. There are also the anomalous cases, Boston and Detroit, for example, where the city share declined dramatically.[7/] Despite the increased absolute amounts and shares of Federal Vocational education funds received by the majority of these cities, these shares, in most cases, were still less than their share of the State's population as indicated by a comparison of the last two columns in Table II.7. In summary, these data do support the hypothesis that State grant mechanisms have changed substantially since the implementation of the 1968 Amendments.

4. Vocational Education Expenditures In SMSAs

Table II.8 shows ratios of the proportion of spending on both the Federal and State/local level in SMSAs to the proportion of the population living in SMSAs. The first two columns show the percent of total Federal and total State/local spending in SMSAs respectively, divided by the proportion of the populations living in SMSAs. The third column is a ratio of the percentage of total SMSA expenditure (total SMSA

7/ Further investigations into the reasons for the significant decrease in local expenditures in two major cities with populations of 250,000 plus, Detroit and Boston revealed that there were discrepancies in reporting. Michigan State Department of Vocational Education reported (6/72) expenditures of Federal funds for Detroit City Public Schools was $688,270 which represented 6.7% of State-wide expenditures of Federal funds in 1968, and $615,724 or 4.0% of State-wide expenditures of Federal funds in fiscal year 1971. The National Center for Educational Statistics (USOE) had reported expenditures of Federal funds for the Detroit Public School System as being over $2.8 million for Fiscal Year 1968. Differences between the two reports are quite significant. Even the State Department of Education Division of Vocational Education of the State of Michigan reported figures are inconsistent. Michigan's annual fiscal report of Vocational Education expenditures of Federal funds for Fiscal Year ending June 30, 1971 reported Detroit City Schools expenditures of Federal funds was $702,308 which is nearly $100,000 above the later reported figure of $615,724. In any event, the later figures seemingly are closer to the actual expenditures for each year.

The same can be said of the reporting discrepancies as they relate to Boston. The State of Massachusetts Division of Vocational Education reported expenditures of Federal funds during Fiscal Year 1971 for the Boston City School system was $337,163 or 3.4% of State-wide expenditure of Federal funds for Vocational Education. Although the State was not able to produce the actual expenditures of Federal funds during Fiscal Year 1968, within the time limitations, they indicated that Boston City Public School system had never received an allotment. Therefore, in the anomalous cases where cities' shares decline it appears that these cities also may well have experienced some increase in their share of Federal Vocational Education funds.

Table II.8

Ratio of the Proportion of Vocational Education Spending in SMSAs to the Proportion of Population in SMSAs, by Source of Funds, by State, 1971

State	Federal Funds	State local Funds	Total Funds
Alabama	0.5	0.7	0.6
Alaska	INA	INA	INA
Arizona	0.8	0.9	0.9
Arkansas	1.2	0.8	1.0
California	INA	INA	INA
Colorado	0.3	0.2	0.3
Connecticut	1.0	0.9	0.9
Delaware	0.8	0.9	0.9
Dist. of Col.	INA	INA	INA
Florida	0.7	0.9	0.9
Georgia	1.1	0.6	0.7
Hawaii	INA	INA	INA
Idaho	0.3	0.2	0.3
Illinois	0.6	0.8	0.8
Indiana	0.9	0.7	0.8
Iowa	1.6	1.5	1.5
Kansas	0.8	0.8	0.8
Kentucky	0.8	0.8	0.8
Louisiana	INA	INA	INA
Maine	0.6	0.7	0.7
Maryland	0.5	0.6	0.6
Massachusetts	1.1	1.1	1.1
Michigan	0.9	0.9	0.9
Minnesota	0.5	0.7	0.7
Mississippi	0.7	0.6	0.6
Missouri	0.6	0.8	0.7
Montana	0.9	1.0	1.0
Nebraska	0.8	0.8	0.8
Nevada	0.8	2.0	1.4
New Hampshire	0.4	0.4	0.4
New Jersey	0.7	0.7	0.7
New Mexico	0.6	0.6	0.6
New York	INA	INA	INA
North Carolina	0.6	0.8	0.7
North Dakota	1.2	0.6	0.8
Ohio	0.5	0.6	0.6
Oklahoma	0.8	0.5	0.6
Oregon	1.1	0.8	0.8
Pennsylvania	0.9	0.9	0.9
Rhode Island	0.9	1.0	1.0
South Carolina	0.6	0.5	0.5
South Dakota	0.9	0.7	0.8
Tennessee	0.9	0.9	0.9
Texas	0.8	1.0	1.0
Utah	0.6	1.0	0.9
Vermont	INA	INA	INA
Virginia	0.5	0.7	0.7
Washington	0.3	0.2	0.3
West Virginia	1.3	1.2	1.2
Wisconsin	0.7	1.0	1.0
Wyoming	INA	INA	INA

Sources: U.S. Department of Commerce. Bureau of the Census, Census of Population: 1970. General Population Characteristics. Final Report, PC(1)-2B to -52B. Washington, D.C.: U.S. Government Printing Office, 1971.

U.S. Office of Education. "Expenditures for Vocational Education by Source, Purpose, and Level," O.E. Form 3131, Washington, D.C., 1971.

expenditures to total vocational education expenditures) to the percentage of population living in SMSAs. A figure larger than 1.0 indicates a disproportionate level of spending in favor of SMSAs while a figure less than 1.0 shows a higher level of spending per population in non-SMSA or rural areas. It can be seen that the patterns of expenditure on both the Federal and State/local levels, and therefore the total as well, are almost identical.

In only 9 States did the proportion of vocational education spending match the proportion of the states' population living in SMSAs. Two of these States have ratios near 1.5 and in one case, State/local spending is 2.0. In 32 States, the ratio of these two proportions is larger than .7 with only 4 States at .5 or below. This suggests that in many States there may be a rural bias in the allocation of funds for vocational education -- a bias that reflects not only the grant mechanism used to distribute Federal funds to LEAs, but also a bias in State/local spending.

5. The Allocation of Federal Funds to Depressed Areas

Table II.9 shows that with the exception of Maine and Wyoming, the percent of spending in depressed areas corresponds closely to the percent of the population residing in those areas. In Maine, one third of the State's population is living in depressed areas but only 5.8% of the total vocational education money is being spent in these areas. It also shows that of the ten selected States, Maine is spending the least amount of State and local funds in depressed areas with 62.6% of the depressed area spending coming from the Federal level. Wyoming also shows a large discrepancy in the amount spent in depressed areas in comparison to the population living there, but it can be seen that Wyoming is emphasizing depressed areas with State and local monies more than any other State, spending much more than the match required by the law.

Table II. 9

Comparison of the State's Population Residing in Depressed Areas to the Total Spending in Depressed Areas for the 10 Selected States 1971

State	% State Population in EDAs	% Total Voc. Ed. Funds Spent in EDAs	% Federal Part of EDA Funds	% State-Local Part of EDA Funds
Arizona	INA	4.7	28.0	72.0
Indiana	INA	25.7	30.9	69.1
Kentucky	36.6	41.9	20.0	80.0
Maine	32.2	5.8	62.6	37.4
Missouri	58.7	51.3	31.2	68.8
New Jersey	INA	16.7	28.6	71.4
Oregon	33.3	30.5	18.4	81.6
Pennsylvania	50.3	58.5	12.9	87.1
Texas	7.3	8.5	23.5	76.5
Wyoming	48.7	21.3	10.8	89.2

Taken from information provided in Part II of individual state plans, 1971.

These two States are very similar in their economic and rural nature, with a small, scattered rural population and almost the entire State being considered economically depressed. An examination of the interviews in both States shows a frequent reference, particularly in Maine, to the isolation and expense of transport and facilities in most depressed areas. They indicate that due to these circumstances, and a rural bias toward general education rather than vocational education, vocational education spending has not been directed to depressed areas. Wyoming interviews reveal almost 2/3 of the burden in financing vocational education falls on the local school districts, almost twice the amount provided at the local level in Maine.

The depressed area spending for Arizona is also very questionable. That State reports only 4.7% of its funds went to depressed areas and while specific figures are unavailable, well over half the population lives in areas designated by the State as being depressed. Due to the lack of accurate reporting methods regarding depressed areas, more detailed information about this question is not available.

The information pertaining to populations in depressed areas comes from maps given in State plans showing countries within each State which have been designated as economically depressed areas according to the definitions in each State plan. In most cases, the designated areas correspond to county boundaries. However, in some States, parts of inner cities which constitute a very small geographical area may not have been included in the depressed areas. It is felt that such omissions due to the presentation of the data in State plans have little effect on the population figure for this presentation. In addition, population figures in depressed areas for three States are unavailable due to the definitions and nature of presentation of the information in respective State plans.

Table II.10 shows Federal, and State/local spending of all funds in depressed areas. In 18 States, less than 10 percent of all funds are directed to these areas.

Table II.10 also shows that in 8 of these States, Federal spending in depressed areas exceeded State/local expenditures. In 31 States, State and local sources provided at least 2/3 of all funds going to depressed areas within their respective States. While it seems that a few States are neglecting economically depressed sections of their State this cannot be verified without depressed area population statistics which are unavailable.

Table II.10

Percentage of Total Vocational Education Spending and Comparison of Federal to State/Local Vocational Education Spending in Depressed Areas, 1971

State	% spending in EDAs to Total	% Federal funds to EDA Total	% State/Local funds to EDA Total
Alabama	5	11	89
Alaska	46	19	81
Arizona	5	28	72
Arkansas	48	32	68
California	INA	INA	INA
Colorado	1/	74	26
Connecticut	45	13	87
Delaware	INA	INA	INA
Dist. of Col.	INA	INA	INA
Florida	8	53	47
Georgia	11	27	73
Hawaii	INA	44	56
Idaho	1	29	71
Illinois	53	8	92
Indiana	26	31	69
Iowa	1/	80	20
Kansas	68	30	70
Kentucky	42	20	80
Louisiana	INA	INA	INA
Maine	6	59	41
Maryland	42	9	91
Massachusetts	7	9	91
Michigan	1	90	10
Minnesota	INA	INA	INA
Mississippi	57	31	69
Missouri	51	31	69
Montana	70	23	77
Nebraska	7	43	57
Nevada	28	28	72
New Hampshire	6	85	15
New Jersey	17	29	71
New Mexico	40	27	73
New York	INA	INA	INA
North Carolina	16	18	82
North Dakota	4	68	32
Ohio	1	29	71
Oklahoma	54	23	77
Oregon	31	18	82
Pennsylvania	59	13	87
Rhode Island	4	15	85
South Carolina	2	50	50
South Dakota	3	33	67
Tennessee	13	38	62
Texas	9	24	76
Utah	20	13	87
Vermont	11	47	53
Virginia	35	26	74
Washington	60	17	83
West Virginia	45	42	58
Wisconsin	1	68	32
Wyoming	21	11	89

1/ Less than 1%.

Source: U.S. Office of Education. "Expenditures for Vocational Education by Source, Purpose, and Level," O.E. Form 3131, Washington, D.C., 1971.

CHAPTER III

Special Target Population Groups

A. Background

The intent and spirit of Congress in enacting the Vocational Education Amendments of 1968 was to provide additional funding and to establish a mechanism through which Federal funds would be equitably distributed to supplement vocational education programs for special target population groups.

These target groups were defined in the law as being persons who are disadvantaged (those who are unable to succeed in regular programs), the handicapped, and others whose occupational training would take place on both the secondary and postsecondary levels. To insure that these target groups would receive a fair share of the total funds appropriated for vocational education, Congress mandated that 10 percent and 15 percent of Part B funds would be used for the support of vocational education programs for handicapped and disadvantaged persons respectively.

This chapter focuses on the set aside provisions of the 1968 Amendments. To provide an overview, Table III.1 shows the ratio of Federal funds spent to the set aside requirements, by State. Of a State's Federal allotment under Part B of the Act, 15 percent is to be spent on the disadvantaged, 10 percent on the handicapped, and 15 percent at the postsecondary level. One-third of Part F funds are set aside for depressed areas. In cases where the ratios in Table III.1 are less than one, a State may come into compliance with the set aside provisions by spending unobligated Federal funds for these purposes in Fiscal

Table III.1

Ratios of Federal Funds Spent for Vocational Education to Setaside Requirements for Vocational Education, by Purpose, by State, 1971

State	Disadvantaged	Handicapped	Postsecondary	Consumer and Homemaking Education in Depressed Areas
Alabama	0.9	1.3	0.5	1.2
Alaska	1.0	1.0	1.0	1.6
Arizona	1.3	1.2	2.1	0.9
Arkansas	1.7	1.2	2.3	1.2
California	1.0	1.0	1.5	INA
Colorado	0.9	1.2	2.4	1.0
Connecticut	0.8	1.5	1.0	0.9
Delaware	1.0	1.1	1.0	1.4
Dist. of Col.	INA	INA	INA	INA
Florida	1.2	1.2	1.8	1.1
Georgia	1.3	1.0	1.7	1.0
Hawaii	INA	INA	INA	INA
Idaho	0.6	0.8	3.3	1.5
Illinois	2.1	1.0	0.8	3.0
Indiana	1.0	1.0	1.0	1.0
Iowa	0.7	1.1	3.4	0.7
Kansas	0.7	1.0	1.9	2.5
Kentucky	1.0	0.8	0.8	1.1
Louisiana	1.1	0.6	2.2	1.1
Maine	1.0	1.0	1.7	0.0
Maryland	0.7	0.7	1.3	0.8
Massachusetts	1.0	1.0	1.1	0.1
Michigan	1.0	1.0	1.3	1.0
Minnesota	1.1	0.8	1.3	1.0
Mississippi	1.1	0.8	1.1	0.7
Missouri	1.0	1.6	1.0	0.7
Montana	1.2	1.2	3.0	1.0
Nebraska	0.7	0.8	2.2	1.0
Nevada	1.2	1.0	1.3	1.1
New Hampshire	0.9	1.1	1.3	0.5
New Jersey	1.1	1.1	1.3	1.2
New Mexico	1.1	1.0	2.7	1.5
New York	1.1	1.4	1.3	1.8
North Carolina	1.0	1.0	1.2	2.2
North Dakota	1.1	1.2	2.7	0.8
Ohio	1.0	1.2	1.2	1.5
Oklahoma	1.3	1.1	2.0	2.0
Oregon	1.0	1.0	2.1	0.9
Pennsylvania	1.1	0.9	1.6	0.7
Rhode Island	0.9	1.0	0.5	1.1
South Carolina	1.0	1.1	1.2	1.8
South Dakota	1.5	0.5	1.7	1.0
Tennessee	1.1	1.0	2.6	1.0
Texas	0.4	1.2	1.6	0.7
Utah	1.1	0.8	1.3	0.8
Vermont	2.2	0.9	1.1	1.4
Virginia	1.0	0.5	1.4	2.9
Washington	0.8	0.6	2.9	1.3
West Virginia	1.0	0.5	1.0	2.0
Wisconsin	1.0	1.0	0.9	1.4
Wyoming	1.0	1.0	1.7	1.4

INA: Information Not Available.

Source: U.S. Office of Education. "Expenditures for Vocational Education by Source, Purpose, and Level," O.E. Form 3131. Washington, D.C., 1971.

Year 1972. (The subject of unobligated balances requires the special attention it receives in Chapter IV.) In cases where the ratio is significantly above one, and there are many cases in the postsecondary category of funds, the States are using more Federal funds for the set-aside purpose than required. These discretionary spending decisions are also analyzed further, along with State/local spending, in Chapter IV.

The table shows great variation between the States and within States between the degree to which they implement the various setasides provided by Federal legislation. Only about half the States fully implemented the disadvantaged and handicapped setasides while most of the States did so for the postsecondary setaside. In only about one-quarter of the States were all four setasides met. The setaside provisions clearly were not viewed as a mandatory requirement by the States in Fiscal Year 1971. Part of the problem may be in the mechanisms used by the States to distribute the Federal funds and the remainder of this chapter is devoted to a study of the experience under the state grant mechanism and the procedures used in implementing the setasides for special target population groups at the state level.

B. The Funding Mechanism For Special Target Population Groups

The Amendments in addition to the percentage setasides, further stipulated that those States desirous of receiving Federal funds shall set forth policies and procedures in their State plans which assure that due consideration will be given to:

(a) projected manpower needs and job opportunities,

(b) the relative vocational needs of all population groups, particularly persons who are disadvantaged and handicapped,

(c) the relative ability of local educational agencies to provide the resources necessary to meet the vocational education needs, particularly those in economically depressed areas,

(d) the cost of vocational education programs provided by the local education agency which is in excess of the cost which may be normally attributed to the cost of education in such LEA.

In the distribution of Federal funds among the local educational agencies within the States, Federal regulations and guidelines suggested that either a scale of values be assigned to variables or a mathematical formula be established which would assess each of these four criteria as a means of establishing priorities for funding.

Thus, the Vocational Education Act of 1968 provides for the maximum flexibility in terms of permitting each State to develop a mechanism for distributing Federal funds equitably among its local educational agencies which is compatible with State and local laws governing funding of educational programs and yet complies with the mandates of the Vocational Education Amendments of 1968. Therefore, each State had the options of respecting the Federally suggested scale of assessing the value of criteria used in establishing funding priorities, or instituting some other method which complies with the intent and mandates of the Act. The Act assumed that States would devise an equitable method for distributing Federal funds among local educational agencies and that these funds would be used to support vocational education

programs in which the greatest number of individuals' needs as well as persons with the greatest needs would be served. Therefore, this analysis will focus on the extent to which these States have complied with the intent and spirit of the Vocational Education Amendments of 1968.

1. Analysis of Disadvantaged and Handicapped

There appeared to be no relationship between the degree to which a State expended Federal setaside funds for the disadvantaged and handicapped and the investment of State/local funds in vocational education for these target groups. Some of the States where more Federal funds were spent for these target populations than required by the setaside, were States where small percentages of the total expenditures for these targets came from State/local sources while in other States a large percentage came from State/ local sources. Similarly, in those States which did not fully expend the Federal setaside for these groups, some States heavily supported these programs while others did not. (See Tables III.2 and III.3.) It appears that State/local support for programs for the disadvantaged and handicapped does not mirror Federal priorities and in many cases may not be influenced by Federal support.

The results of an analysis of methods used by 10 selected states, as stipulated in their respective long-range plans (Part 1 - Administrative Provisions) indicated that the methods used met the requirements of the 1968 Amendments in that they took the criteria into account in their procedure for distributing Federal vocational education funds. Of the 10 states, four utilized a scale of weights method for establishing priorities in funding regular programs and five used a mathematical formula for distribuitng funds to regular programs, while five states elected to use this method in determining priorities

Table III.2

Expenditures of Federal, State, and Local Vocational Education Funds for the Disadvantaged, All Parts, by State, 1971 (In Thousands)

State	Federal $	% Federal	State/Local $	% State/Local	Total
Alabama	1998	65	1063	35	3061
Alaska	343	15	1886	85	2229
Arizona	922	61	590	39	1512
Arkansas	1525	44	1960	56	3485
California	INA	INA	INA	INA	INA
Colorado	1182	62	711	38	1893
Connecticut	948	25	2830	75	3778
Delaware	148	55	120	45	268
Dist. of Col.	INA	INA	INA	INA	INA
Florida	3356	34	6427	66	9783
Georgia	2799	55	2286	45	5085
Hawaii	INA	INA	INA	INA	INA
Idaho	289	95	16	5	305
Illinois	5926	29	14430	71	20356
Indiana	1890	70	799	30	2689
Iowa	816	57	625	43	1441
Kansas	795	49	844	51	1639
Kentucky	1651	89	214	11	1865
Louisiana	2071	41	3014	59	5085
Maine	390	96	16	4	406
Maryland	782	23	2553	77	3335
Massachusetts	1577	58	1136	42	2713
Michigan	INA	INA	74161	INA	INA
Minnesota	1788	76	557	24	2345
Mississippi	1299	60	883	40	2182
Missouri	1627	79	424	21	2051
Montana	354	93	28	7	382
Nebraska	363	67	181	33	544
Nevada	137	45	165	55	302
New Hampshire	437	88	58	12	495
New Jersey	2723	64	1523	36	4246
New Mexico	894	30	2100	70	2994
New York	7562	16	40069	84	47631
North Carolina	2405	66	1228	34	3633
North Dakota	464	68	214	32	678
Ohio	3720	49	3949	51	7669
Oklahoma	1528	24	4749	76	6277
Oregon	917	59	637	41	1554
Pennsylvania	4714	42	6578	58	11292
Rhode Island	321	33	647	67	968
South Carolina	1448	95	76	5	1524
South Dakota	456	42	624	58	1080
Tennessee	2252	68	1051	32	3303
Texas	3204	42	4494	58	7698
Utah	520	54	436	46	956
Vermont	482	54	418	46	900
Virginia	2703	34	5240	66	7943
Washington	1314	38	2122	62	3436
West Virginia	954	71	391	29	1345
Wisconsin	1717	76	550	24	2267
Wyoming	191	52	179	48	370

Source. U.S. Office of Education. "Expenditures for Vocational Education by Source, Purpose, and Level," O.E. Form 3131. Washington, D.C., 1971.

Table III.3

Expenditure of Federal, State, and Local Vocational Education Funds for the Handicapped, All Parts, by State, 1971 (In Thousands)

State	Federal $	% Federal	State/Local $	% State/Local	Total
Alabama	960	67	482	33	1442
Alaska	42	41	60	59	102
Arizona	370	91	37	9	407
Arkansas	492	64	273	36	765
California	INA	INA	INA	INA	INA
Colorado	421	31	916	69	1337
Connecticut	521	37	896	63	1417
Delaware	81	41	115	59	196
Dist. of Col.	INA	INA	INA	INA	INA
Florida	1215	58	879	42	2094
Georgia	939	79	248	21	1187
Hawaii	INA	INA	INA	INA	INA
Idaho	107	100	0	0	107
Illinois	1413	35	2663	65	4076
Indiana	874	31	1971	69	2845
Iowa	493	46	569	54	1062
Kansas	408	50	412	50	820
Kentucky	573	82	122	18	695
Louisiana	472	48	504	52	976
Maine	217	100	0	0	217
Maryland	396	25	1187	75	1583
Massachusetts	796	39	1270	61	2066
Michigan	9008	82	1962	18	10970
Minnesota	499	92	41	8	540
Mississippi	385	76	119	24	504
Missouri	1145	[illegible]	35	3	1180
Montana	170	98	3	2	173
Nebraska	191	66	98	34	289
Nevada	56	46	67	54	123
New Hampshire	146	39	230	61	376
New Jersey	996	61	637	39	1633
New Mexico	274	44	343	56	617
New York	3163	33	6568	67	9731
North Carolina	1099	81	258	19	1357
North Dakota	164	80	42	20	206
Ohio	2010	83	423	17	2433
Oklahoma	537	87	78	13	615
Oregon	491	45	592	55	1083
Pennsylvania	1637	51	1593	49	3230
Rhode Island	162	94	11	6	173
South Carolina	636	95	31	5	667
South Dakota	76	39	120	61	196
Tennessee	742	100	0	0	742
Texas	2519	98	52	2	2571
Utah	172	32	372	68	544
Vermont	71	100	0	0	71
Virginia	411	49	436	51	847
Washington	364	22	1292	78	1656
West Virginia	233	76	72	24	305
Wisconsin	697	70	300	30	997
Wyoming	91	57	69	43	160

Source: U.S. Office of Education. "Expenditures for Vocational Education by Source, Purpose, and Level," O.E. Form 3131. Washington, D.C., 1971.

for funding of programs for the disadvantaged and handicapped. Two of the 10 states elected to use a combination of methods in arriving at vocational education program priorities, as shown in the following table.

Table III.4

Method Used in Establishing Funding Priorities for 10 Selected States

Method of establishing priorities	Number of States using method		
	Regular	Disadvantaged	Handicapped
Scale of weights	4	5	5
Mathematical formula	4	3	3
Scale of weights/ mathematical formula	2	2	2
Totals	10	10	10

As depicted in Table III.5, most of the 10 selected States indicated that they use the same method for establishing funding priorities with respect to the target groups. Three (3) of the 10 use a different method of establishing priorities for disadvantaged and two for handicapped programs.

Six of the ten States in the sample gave equal weight to the four criteria; Manpower needs, Vocational Education needs, Ability to Pay and Excess Costs; when establishing priorities for regular vocational education programs on the secondary level. The remaining four States weighted Manpower needs heavier than the other three criteria. In establishing priorities for programs dealing with the disadvantaged and handicapped, three States gave equal weight to the four criteria for both target populations. Ranking of the other three criteria by assigned weights, distributed itself in a random fashion throughout the remaining State plans.

Table III.5

Variation Among States in Methods Used to Distribute Federal Funds Among Target Groups (Part B)

	Methods Used			
Target Groups	Same as Regular (Secondary)	Same as Handicapped	Same as Disadvantaged	Independent Method
Disadvantaged	6	1		3
Handicapped	7		1	2

Many States reported difficulty in obtaining data for local areas for the four major criteria in the text. This tended to minimize the effectiveness of the weighted criteria as an instrument for the distribution of Federal funds to target populations according to local needs. When no data for local areas were available relative to the four criteria, the distribution of funds to local education agenda by the distribution formula reflected the criteria only in proportion to the assigned weights and not in relation to local needs.

Further analysis of criteria used in terms of number of variables utilized in assessing the scale values or product of a mathematical formula, revealed that there were no significant differences among criteria or methods used for specific target groups. Nearly all States use more than two variables in assessing the value of each criteria in their method of establishing funding priorities. One State used six variables for both handicapped and disadvantaged, while two States used six variables in assessing the value of excess cost.

2. Analysis of Postsecondary and Part F Funds in Economically Depressed Areas.

a. Postsecondary.

A study of the state plans for the 10 target states shows that with the exception of two states, funds are distributed to postsecondary institutions according to the forumla applied to all Part B funds using the four criteria of (1) manpower needs and job opportunities, (2) vocational education needs, (3) ability to pay, and (4) excess costs. These factors are used in a system of weights to arrive at a value of relative need for each institution as compared with other instituions applying for vocational education funds in the same manner as described in the section pertaining to disadvantaged and handicapped.

Table III.6 shows that State/local spending for postsecondary vocational education exceeded 75% of the total expenditures in 27 States, and in Table III.7, it can be seen that in 33 States, postsecondary spending constitutes more than 50% of all expenditures for special target population groups. Matching ratios[1/] also indicate a much greater State/local effort in this category than required by law. All this seems to indicate that the post-secondary level of vocational education has been placed in a relatively high priority category on the State/local level. Since this coincides with the Federal priority as established with the postsecondary setasides, the various State plans perhaps do not reflect a special emphasis on this category since that emphasis has already been established in the past, whereas the disadvantaged and handicapped setasides have caused a definate reorientation in priorities on the State/local level.

1/ See Table IV.8 Matching Ratios for Setaside Purposes in Chapter IV.

Table III.6

Expenditure of Federal, State, and Local Vocational Education Funds for Postsecondary, by State, 1971 (In Thousands)

State	Federal $	% Federal	State/Local $	% State/Local	Total
Alabama	634	5	12811	95	13445
Alaska	179	20	722	80	901
Arizona	1029	23	3434	77	4463
Arkansas	2242	41	3187	59	5429
California	10343	INA	INA	INA	INA
Colorado	1961	25	5989	75	7950
Connecticut	536	10	4766	90	5302
Delaware	101	3	2965	97	3066
Dist. of Col.	INA	INA	INA	INA	INA
Florida	3679	21	13672	79	17351
Georgia	5993	37	10070	63	16063
Hawaii	INA	INA	INA	INA	INA
Idaho	1018	31	2260	69	3278
Illinois	3161	8	38001	92	41162
Indiana	1231	29	2942	71	4173
Iowa	3007	14	17932	86	20939
Kansas	1551	28	3985	72	5536
Kentucky	1649	22	5920	78	7569
Louisiana	3665	46	4341	54	8006
Maine	618	22	2187	78	2805
Maryland	1370	18	6387	82	7757
Massachusetts	1312	18	6081	82	7393
Michigan	3291	21	12244	79	15535
Mi sota	5355	18	24460	82	29815
Mississippi	2375	32	5035	68	7410
Missouri	1815	29	4344	71	6159
Montana	643	22	2265	78	2908
Nebraska	1033	21	3993	79	5026
Nevada	157	50	155	50	312
New Hampshire	261	13	1807	87	2068
New Jersey	1788	50	1787	50	3575
New Mexico	942	39	1449	61	2391
New York	4295	9	43057	91	47352
North Carolina	4140	13	27633	87	31773
North Dakota	642	25	1884	75	2526
Ohio	3009	32	6423	68	9432
Oklahoma	1703	45	2116	55	3819
Oregon	1803	19	7783	81	9586
Pennsylvania	5086	29	12625	71	17711
Rhode Island	172	12	1225	88	1397
South Carolina	1054	51	1015	49	2069
South Dakota	644	37	1093	63	1737
Tennessee	4003	29	10035	71	14038
Texas	7273	30	16924	70	24197
Utah	713	16	3760	84	4473
Vermont	126	47	143	53	269
Virginia	2542	48	2793	52	5335
Washington	3791	17	18447	83	22238
W Virginia	929	50	941	50	1870
Wisconsin	2601	6	43208	94	45809
Wyoming	338	22	1232	78	1570

Source: U.S. Office of Education. "Expenditures for Vocational Education by Source, Purpose, and Level," O.E. Form 3131. Washington, D.C., 1971.

Table III.7

Expenditure of Federal, State and Local Vocational Education Funds for Special Population Groups, by State, 1971 (In Thousands)

	Total Fed., State & Local Funds for Special Target Groups	% Disadvantaged	% Handicapped	% Post-Secondary	% EDA Part F
Alabama	19600	16	7	69	8
Alaska	3540	63	3	26	9
Arizona	6468	23	6	69	1
Arkansas	11091	31	7	49	13
California	INA	INA	INA	INA	INA
Colorado	11389	17	12	70	2
Connecticut	11194	34	13	47	6
Delaware	3565	8	6	86	1
Dist. of Col.	INA	INA	INA	INA	INA
Florida	30144	33	7	58	3
Georgia	23620	22	5	68	5
Hawaii	INA	INA	INA	INA	INA
Idaho	4155	7	3	79	11
Illinois	72033	28	6	57	9
Indiana	10447	26	27	40	7
Iowa	23526	6	5	89	0
Kansas	9080	18	9	61	12
Kentucky	11883	16	6	64	15
Louisiana	15968	32	6	50	12
Maine	3555	11	6	79	4
Maryland	13150	25	12	59	4
ıssachusetts	12378	22	17	60	2
ıichigan	INA	INA	INA	INA	INA
Minnesota	32856	7	2	91	1
Mississippi	10177	21	5	73	1
Missouri	10991	19	11	56	15
Montana	3495	11	5	83	1
Nebraska	5996	9	5	84	2
Nevada	774	39	16	40	5
New Hampshire	3057	16	12	68	4
New Jersey	9792	43	17	37	4
New Mexico	6940	43	9	35	14
New York	121737	39	8	39	14
North Carolina	38594	9	4	82	5
North Dakota	3443	20	6	73	1
Ohio	21409	36	11	44	9
Oklahoma	12636	50	5	30	15
Oregon	12307	13	9	78	1
Pennsylvania	32746	35	10	54	2
Rhode Island	2764	35	6	51	8
South Carolina	4724	32	14	44	10
South Dakota	3159	34	6	55	5
Tennessee	19268	17	4	73	6
Texas	36584	21	7	66	6
Utah	6008	16	9	75	1
Vermont	1487	61	5	18	17
ırginia	16765	47	5	32	16
Washington	28660	12	6	78	5
West Virginia	4291	31	7	44	18
Wisconsin	49305	5	2	93	1
Wyoming	2461	15	7	64	15

Source: U.S. Office of Education. "Expenditure for Vocational Education by Source, Purpose, and Level," O.E. Form 3131. Washington, D.C., 1971.

b. Part F Funds in Economically Depressed Areas.

A comparison of State/local to Federal expenditures for Consumer and Homemaking Education as set forth in Table III.8 reveals that State/local spending in this area far exceeds any matching requirements stipulated in the law.

The degree of overmatch in most States--and the amount of variation among States--indicates that Federal spending in this area has little, if any, effect on State/local priorities. The law requires that one-third of the Federal funds allocated in Part F be spent in depressed areas. It can be seen from Table III.8 that only eight States have spent less than this requirement although those States may have funds carried forward to the following year which will account for this deficiency. However, the total spending of Part F funds in depressed areas indicates that no pattern of expenditure has been established. In fourteen States, expenditures exceed 50% of the total Part F funds going to depressed areas, but 23 States spend less than 30% in these areas. This suggests that while most States are complying with the requirements for depressed area spending, it can not be demonstrated that the intent of Congress concerning depressed area spending has been extended beyond the minimum stipulations of the law.

C. Defects in the Funding Mechanism as Viewed by State and Local Vocational Education Administrators.

Specifically referencing the distribution of funds for the disadvantaged and the handicapped, interviews with State and local officials in the ten sample States revealed varying beliefs regarding defects in the funding mechanism. These officials voiced general agreement on the time lag in the funding process and its concurrent effect upon the planning and implementation of programs. This "lack of timely funding" hampers both short- and long-range planning, which results in inefficient program implementation.

Table III.8

Comparison of State/Local to Federal Vocational Education Expenditures for Total Part F Vocational Education Expenditures in Depressed Areas

State	State to Federal Consumer Education Part F Total	State to Federal Consumer Education Part F EDAs	% of Total Part F Funds Spent in EDAs	% of Federal Part F Funds Spent in EDAs
Alabama	9.3	7.9	45	52
Alaska	16.4	21.0	63	50
Arizona	10.7	0.4	4	31
Arkansas	9.0	13.1	55	39
California	INA	INA	INA	INA
Colorado	10.1	1.8	15	59
Connecticut	17.1	9.3	33	58
Delaware	1.2	0.7	32	42
Dist. of Col.	INA	INA	INA	INA
Florida	13.8	2.8	10	40
Georgia	9.2	5.1	23	38
Hawaii	INA	INA	INA	INA
Idaho	10.5	8.9	43	50
Illinois	6.3	6.3	100	100
Indiana	6.7	3.2	19	34
Iowa	8.9	0.3	3	25
Kansas	4.2	4.3	84	82
Kentucky	10.5	10.6	44	44
Louisiana	7.1	10.0	55	41
Maine	6.3	1.4	15	45
Maryland	39.6	4.1	6	47
Massachusetts	1.5	19.6	19	2
Michigan	2.8	0.1	10	33
Minnesota	9.0	0.2	4	33
Mississippi	7.6	0.1	3	26
Missouri	10.2	12.6	41	33
Montana	7.7	0.1	4	34
Nebraska	7.6	1.7	10	33
Nevada	1.8	1.8	53	52
New Hampshire	11.5	9.7	22	26
New Jersey	0.8	0.4	29	37
New Mexico	9.4	12.6	67	51
New York	18.7	18.7	91	91
North Carolina	2.4	2.6	98	93
North Dakota	9.9	0.4	4	29
Ohio	14.9	2.5	13	60
Oklahoma	8.9	8.3	63	67
Oregon	0.2	0.3	30	30
Pennsylvania	1.0	0.9	48	51
Rhode Island	4.6	5.8	79	65
South Carolina	1.0	1.0	53	54
South Dakota	8.7	4.2	18	33
Tennessee	6.9	6.0	29	33
Texas	16.5	5.9	10	24
Utah	14.1	INA	2	36
Vermont	14.1	9.7	33	46
Virginia	10.1	3.8	41	97
Washington	12.8	8.1	43	65
West Virginia	4.6	3.8	56	66
Wisconsin	4.6	0.1	13	62
Wyoming	16.3	20.2	58	47

Source: U.S. Office of Education. "Expenditures for Vocational Education by Source, Purpose, and Level," O.E. Form 3131. Washington, D.C., 1971.

Specifically, hiring and preparing competent teachers, and securing equipment and materials becomes difficult when monies have not actually been appropriated. In addition, funding delays force districts to borrow and results in hidden costs, i.e., interest on dollars borrowed until the funding ensues. This, in turn, reduces monies that would have been channelled into educational programs.

General concensus regarding rectification of the funding-planning-implementation problem centered on the following two alternatives: 1) advance notice of funding that could range from 2 months to 2 years, or 2) multi-year funding that could range from 2 to 5 years. Additional comments from local officials revealed an interest in block grants to finance equipment and experimental teacher training programs for the disadvantaged and handicapped.

State and local officials emphasize several problems in the funding mechanism traceable to the VEA Amendments of 1968. One major problem, they claim, is the inflexibility of funding handicapped and disadvantaged programs. Specifically, they cite the inability of disadvantaged and handicapped students to transfer into and out of regular programs without an ensuing loss of funds for the district. Administrators noted that the present funding process discourages the career ladder approach to education, isolates the two groups in question, and as a result, polarizes groups of students. State officials in Indiana contend that lateral movement for the disadvantaged and handicapped into and out of regular programs should be encouraged through the funding process and that regulations should identify how disadvantaged and handicapped funds can be commingled with regular program monies instead of being separated. Some State officials recommended

that present guidelines be modified to permit flexibility in funding disadvantaged and handicapped students who move from special programs into regular programs during the school year. In general, conversations with State and local administrators seem to emphasize a general lack of understanding regarding the use of funds for the disadvantaged and handicapped and the need for more precise guidelines with respect to the use of funds for these groups. Administrators appear to be unaware of the fact that these special target groups may be in regular classes and still be funded from the setasides provided they receive special services.

Another major defect in the funding mechanism attributable to the 1968 Vocational Education Amendments is viewed to be the general lack of criteria for identifying the disadvantaged, and in many instances the handicapped. This identification problem makes fund distribution difficult in terms of determining to whom the funds are to be allocated. Rectification of the problem is viewed differently. In general, the administrators interviewed advocated the establishment of more stringent criteria for identifying the disadvantaged and handicapped. For example, one local administrator specifically noted that Section 122(4)(B) must be improved in order to define the degree of handicap or impairment. However, another local official pointed out that the definition of disadvantaged and handicapped should be discretionary, based on the needs of the district. This would allow the local education agency more flexibility in establishing programs to meet the specific needs of certain groups indigenous only to a specific locale.

State and local administrators claim that U.S. Office of Education guidelines and administration have contributed to defects in the funding mechanism. First, they were critical of OE support for new programs for the disadvantaged and handicapped, and suggested that emphasis be shifted away from new program development to increases in

the supportive services to the disadvantaged and handicapped in currently operational regular programs. In general, they requested more flexibility in this area.

Secondly, some officials complain that OE fails to inform the States of the method of fund allocation. Specifically, they claim unawareness of how 1969 Census figures are manipulated to arrive at the figure used in determining what the State's share of vocational education funds will be. They assert that the States should be apprised of factors used by the Office of Education to allocate funds to the States, cite a mystery in the current weighting used by OE, and maintain that parts of the Vocational Education Amendments of 1968 cannot be related to criteria used by USOE in funding. In general, these complaints point out a possible need for more viable communication between the Federal and State governments with regard to the funding operation.

Defects in the funding mechanism attributable to State administration are viewed by State and local officials to be the following: 1) inadequate or nonexistent attempts on the part of the State staff to inform local officials of the formula used to distribute funds among the local education agencies or to obtain inputs from the local agencies in the development of a State formula, 2) the lack of attention given to the disadvantaged and the handicapped on the part of several sample States through the failure to actually establish an office geared to the problems of these two groups within the existing State structure, 3) the failure to provide technical assistance to local groups in writing proposals to obtain disadvantaged and handicapped funds and in implementing special programs for the disadvantaged

and handicapped, 4) the complexity of the application/approval process with resultant funding delays, and 5) lack of competent staff at the State level to deal with problems of the disadvantaged and handicapped; specifically, the lack of leadership in establishing some disadvantaged and handicapped program standards and evaluative program criteria.

Recommendations based on these observations suggest an improvment of the lines of communication between State and local governments with regard to the funding mechanism, more efforts at the State level to reflect the Vocational Education Amendments of 1968 priorities toward the disadvantaged and handicapped by the incorporation of these special program areas into the State organizational structure, the improvement of technical assistance to the local education agencies, the streamlining of the application/approval process for funding, and a concerted attempt to attract competent staff at the State level.

Defects in the funding mechanism traceable to the efforts of local administrators appear to be the following: 1) lack of competent staff to deal effectively with the disadvantaged and handicapped, and 2) lack of expertise on the part of local administrators with regard to proposal writing and implementing special programs for the disadvantaged and handicapped.

CHAPTER IV

Other Aspects of the State Grant Mechanism

A. Analysis of Unobligated Federal Allotments

The ultimate goal of Congress, as expressed in the Vocational Education Amendments of 1968, was to provide a mechanism through which Federal funds would be channeled to those persons whose needs for training were greatest. The policies that govern the implementation of the Act are intended to permit the States some leeway in shifting Federal funds to reflect State and local needs and priorities. Unobligated Federal allotments at the end of the Fiscal Year will be utilized as indices in measuring the extent to which states and localities have taken full advantaged of Federal funds made available for vocational education programs.

If the vocational education need for additional Federal grants-in-aid was justified and if adequate State grants mechanisms had been implemented, then there should have been substantial utilizations of full amounts alloted to States for vocational education.

In testing this hypothesis, computations were made of the number of States showing an increase in unobligated Federal allotments from 1970 to 1971 and the number of States showing no differences between unobligated Federal allotments for the same time period. Table IV.1 presents the results of these computations.

This means that less than half of all states reported unobligated balances in all categories that were greater for Fiscal Year ending 1971 than for Fiscal Year 1970. For Part C (Research) there were no reported differences between unobligated balances for six states for the two Fiscal Years 1970 and 1971, but 44 states indicated a decrease in unobligated balances for Fiscal Year 1971.

Table IV.1

Number of States Showing Increased or Static Unobligated Vocational Education Allotment From 1970 to 1971 by Parts of the Act*

Part of The Act	Number of States Showing Increase	Number of States Remaining Static
A	13	9
B	16	4
C		6
D	15	10
F	5	17
G	18	7
H	14	14

As depicted in Table IV.2, the unobligated Federal allotment at the beginning of Fiscal Year 1971 (unobligated Federal allotments brought forward from previous Fiscal Year) for Part A (disadvantaged) was $1,404,000 more than unobligated allotments at the end of Fiscal Year 1971. Despite the seemingly small amount in terms of differences between the two Fiscal Years, the $7,252,000 unobligated balance at the end of Fiscal Year 1971 must indicate one of two conditions: (1) the states overestimated the number of disadvantaged persons to be served, or (2) the state grant mechanism is not as functional as it should be. The latter seems to be nearer the actual fact. Perhaps more significant is the total unobligated Federal allotments of 50 states, in the

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*Source: U.S. Office of Education. "Expenditures for Vocational Education by Source. Purpose, and Level," O.E. Form 3131. Washington, D.C., 1971.

Table IV.2

Unobligated Federal Vocational Education Allotments at the Beginning and End of Fiscal Year 1971 for 50 States

Part of Act	Unobligated Federal Allotments (In Thousands)		
	Beginning of FY 1971	End of FY 1971	Difference
A	$ 8,656	$ 7,252	$ 1,404 (-)
B	40,993	45,896	4,903
C	307	9,058	8,751
D	2,691	3,141	530
F	1,440	4,497	3,057
G	6,224	6,612	388
H	1,690	1,476	214 (-)
Total	$62,079	$78,040	$15,961

(-) Denotes decrease in amount of unobligated Federal allotment carried forward at end of Fiscal Year.

Source: States' Annual Fiscal Reports, U.S. Office of Education, May, 1972.

amount of $78,040,000 for Fiscal Year 1971 which indicates a $15,961,000 increase over Fiscal Year 1970 and 19.3% of total allotments to States. Does this represent a trend which is indicative of too much Federal grant-in-aid? This would not hold true on the local levels. The results of field interviews indicate the opposite. Perhaps what this does indicate is that State grant mechanisms are not functioning adequately to meet the local educational agencies' demands.

Further analysis of the large unobligated balance carried forward at the end of Fiscal Year 1971 as revealed in Table IV.3 indicates that two States failed to utilize over half of their respective 1971 allotments. Another 14 or 28% of the States carried forward from 25-50% of their 1971 allotments and only two States had a zero balance at the end of Fiscal Year 1971. In one of the program areas where it might be anticipated that all of the States would utilize 100% of their respective allotments (Part A -- 102(b) Disadvantaged), there were two States that failed to use any, 20% of the States utilized less than 75% of their 1971 allotment, and 12% used less than 50% of their allotments. There were only 12 or 24% of the States (mostly mid-American) with a zero balance in this category at the end of Fiscal Year 1971. Unobligated Federal allotments for research (Part C) were proportionally greater among the States, where 12% of the States did not use any, and 32% used less than 75% of their allotments. Conversely, there were 32% of the States that had a zero balance for work-study (Part H) and 34% had no unobligated balance for consumer and homemaking education (Part F).

There is a tendency for States with large metropolitan areas to utilize more of the 100% disadvantaged (Part A -- 102(b)) and research (Part C) funds than their rural and less densely populated counter-parts. Conversely, the rural and mid-American States have a tendency to utilize those categorical funds (Parts F, G, and H) which have work experience components as part of their programs.

Table IV.3

Differences Between Unobligated Federal Vocational Education Allotments Carried Forward from Fiscal Year 1970 and 1971, by 50 States (In Thousands)

State	Part A	Part B	Part C	Part D	Part F	Part G	Part H	Total
Alabama	0	256	188-	0	115-	0	35-	83-
Alaska	0	0	8-	34-	0	0	0	43-
Arizona	23	14-	38-	15-	8-	61-	12-	127-
Arkansas	74	140	160-	16-	0	19	4	59
California	1303	925-	811-	12-	327-	6-	329	449-
Colorado	12-	68	92-	0	100-	71	19-	83-
Connecticut	19-	125-	160-	19	118-	48-	13-	466-
Delaware	4	22-	6-	0	6	3-	1	21-
Dist. of Col.	INA	INA	INA	INA	INA	INA	INA	INA
Florida	135	823-	63-	3-	69-	71	28	725-
Georgia	79-	74-	485-	106	53-	31	22-	576-
Hawaii	22-	210-	64-	11	8-	15	4	274-
Idaho	33-	107-	63-	10	0	2-	2-	197-
Illinois	0	0	0	0	0	0	0	0
Indiana	0	0	0	0	0	0	0	0
Iowa	36-	381-	229-	71	30-	0	28-	634-
Kansas	4-	49-	204-	131-	0	49	5	333-
Kentucky	22-	1283-	259-	27-	83-	64-	9-	1749-
Louisiana	67-	18	382-	123	69-	11-	7	381-
Maine	0	72-	84-	16	0	28	4-	118-
Maryland	104-	313-	47-	3	131-	81-	0	673-
Massachusetts	24-	1139	272-	37-	44-	204-	23-	534
Michigan	0	794-	0	0	0	0	0	794-
Minnesota	174	140	108-	1	8	28	1-	248
Mississippi	7-	348-	258-	19-	53-	16	25	646-
Missouri	59-	321	139-	0	131-	30-	24-	63-
Montana	12-	57	57-	18-	0	52	1-	22
Nebraska	59-	107-	10-	0	0	34	0	142-
Nevada	5-	13-	6-	2	11-	24-	0	59-
New Hampshire	10-	6	49-	1-	31-	22	3	58-
New Jersey	84	712	148-	78-	50	8-	0	629
New Mexico	6-	0	6-	1-	0	53	0	39
New York	330	3416	753-	32-	482-	93	219	2790
North Carolina	104	69	550-	39-	160-	18-	27-	621-
North Dakota	6	6-	53-	38-	4-	62	3-	38-
Ohio	135-	807	52-	0	164-	119	64-	513
Oklahoma	0	193-	107-	15	7-	43-	0	336-
Oregon	21-	59-	34-	2	8	9-	1	115-
Pennsylvania	155-	1481-	357-	16-	642-	100-	0	2752-
Rhode Island	25-	555-	51-	4	38-	35-	1	701-
South Carolina	68-	259	286-	141-	51	49-	38-	272-
South Dakota	12-	36-	1-	3-	0	5-	5-	62-
Tennessee	7-	877-	374-	29-	0	20-	24	1284-
Texas	235	293	938-	72-	81-	252-	21-	4063-
Utah	0	93-	0	15-	35-	31-	0	176-
Vermont	0	79	0	1	0	6-	0	73
Virginia	118	409-	396-	13-	0	103-	35-	838-
Washington	177	653	229-	38	104-	177	19	730
West Virginia	158-	181-	168-	47-	0	108-	0	658-
Wisconsin	205-	550-	0	35-	82-	23-	68-	966-
Wyoming	0	12-	6-	0	0	0	2-	22-

(-) Denotes unobligated allotments for FY '70 were less than FY '71.
Source: State Annual Fiscal Reports, U.S. Office of Education, May 1972.

A number of assumptions can be made as to whether the State grant mechanisms with associated technical assistance are in fact functioning on a level that will insure that over $78 million of unobligated Federal funds plus their Federal allotments for Fiscal Year 1972 will be utilized for the purposes for which they were allocated. One indicator is presented here which will be used as an index to measure States' performances in utilizing Federal funds over a two year period, i.e., unobligated Federal allotments which were returned to the U.S. Treasury. Depicted in Table IV.4, there were 42% of the 50 States that permitted $1,330,045 or slightly over 1/2 of 1% of total allotments to States, to lapse. The total dollars involved among the 20 States varied from $9,000 to $505,302. As might be anticipated, there were over 1/2 of the States reporting an unobligated balance in the State vocational education program, but surprisingly it only represented 31% of the total for all States. Similarly, 45% of the States reported unobligated balances for cooperative education (Part G) which represented 42.2% of the total for all States. The third largest category of unobligated balances was disadvantaged (Part A -- 102(b)) which amounted to 17.4% of the total.

The increase of almost 16 million dollars in total unobligated allotments for all States from 1970 to 1971 and the fact that a number of States reported unobligated allotments for the first time in 1971 for several parts of the Act both tend to support the hypothesis that State and local education agencies take advantage of cheaper Federal grants-in-aid.

The data also discloses that over half of the States reported lower unobligated balances for 1971 for most parts of the Act than they reported in 1970. Then too there is a substantial reduction in the total unobligated allotments for Part A and Part H of the Act from 1970 to 1971 and a substantial increase in Part C for the same time period. This tends to suggest that the States are spending selectively, according to their priorities within a given year. This

Table IV.4

Unobligated Federal Vocational Education Allotments Returned to the U.S. Treasury, Fiscal Year 1971 (In Total Dollars)

State	Setasides A	Target Populations B	Parts of Act: Research & Training C	Parts of Act: Everyday Programs D	Consumer Education F	Cooperative Programs G	Work-Study Programs H	State Totals
Alaska			9,000					9,000
Conn.	47,137			481		41,548		89,166
Del.	509	5,165	040		298			6,012
Va.		187,755				75,883	15,859	279,497
Pa.	4,364	126,899	231		478		201	132,173
Neb.		331						331
Tenn.				3,012				3,012
Md.	2,263	15,049	492		1,593	1,127	808	21,332
Me.			667			007		674
Ore.		1,761		1,364	824			3,949
Miss.				4,206				4,206
Ky.		005		26,541		002		26,548
Idaho		2,305	6,334					8,639
S.D.		15,690						15,690
Texas	25,841	56,303		13,486	3,433	394,806	11,433	505,302
West Va.						14,910		14,910
R.I.	11,288							11,288
La.	125,150	1,741				10,222		137,113
Fla.	15,937			2,406		23,441		41,784
Iowa							19,419	19,419
Totals by Part of Act	232,489	413,004	16,764	51,496	6,626	561,946	47,720	1,330,045
Percentage by Part of Act	17.4	31.0	1.3	3.9	.5	42.2	3.6	99.9 */

*/ Does not add to 100 because of rounding.

Source: State Annual Fiscal Reports, 1971, U.S. Office of Education, May, 1972.

phenomenon supports the recommendation that the Tydings Amendment should be extended with further Congressional authorization of Federal funds for vocational education to provide the States more time to move further in the direction intended in the 1968 Amendments, which they seem to be doing.

It is conceivable that local exigencies sometimes prohibit the immediate implementation of Federal vocational education priorities. A similar analysis to this one after several more years have elapsed under the present set-up will serve to confirm or deny the present indications with regard to unobligated balances.

B. The Leverage Effect of Federal Funds

One of the issues surrounding any grant-in-aid program is the extent to which the grant influences the amount of spending by the recipient government out of its own resources for the aided function. Does the grant-in-aid stimulate State/local spending; does the receipt of Federal funds permit State and local government to substitute those dollars for their own? This analysis adopts the term "leverage effect of Federal funds" when discussing this problem in the context of the Federal program of aid for vocational education. The first part of the analysis puts the issue in a theoretical framework; the second part presents an empirical analysis of Federal and State/local spending for vocational education.

1. A Theoretical Framework

In recent years a body of literature has been developed dealing with the impact of grants-in-aid on the level and pattern of spending by recipient governments. A more rigorous exposition of this theory as it applies to vocational education is presented in Appendix A along with some key bibliographical references. What follows is a nontechnical exposition.

The program of Federal support for vocational education stemming from the Vocational Education Act of 1963 as modified by the 1968 Amendments is a series of categorical grants-in-aid. They are all closed-ended, that is, a finite sum is made available to each State to be used for a specific purpose. The terms of the legislation require that, in most cases, Federal funds be matched with State/local funds. For most purposes, encompassing the majority of the Federal funds, the required matching ratio is 50 percent.[1/] The 1968 Amendments also incorporated a maintenance of effort provision requiring that State and local

1/ The reader may wish to refer back to the capsule summary of the federal program presented in Table II.1

fiscal support for vocational education programs under Part B of the legislation not diminish so as to substitute Federal funds for State/local monies. 2/

In addition, the Act requires that State plans provide assurance that Federal funds made available under Part B will be used to supplement, and to the extent practical, increase the amount of State and local funds that would in the absence of the Federal funds be made available for those purposes. 3/

The requirement regarding matching and maintenance of effort are often discussed in terms of the ratio of State/local spending to Federal funds and that ratio is often taken as evidence of the stimulative effect of the grant-in-aid. Matching grants stimulate State/local spending by reducing the cost of the supported program perceived by State/local decision makers. This stimulative effect would hold throughout the range of expenditures for the program if the Federal grant were open-ended, that is, if the Federal government matched every dollar spent by the State and localities for the aided purpose. When grants are limited by Congressional appropriations, as they were in the vocational education program, then the stimulative effect "wears off" after the Federal funds and the required matching funds have been spent. Any

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2/ Section 124(c) of the Act reads:

> "(c) No payments shall be made in any fiscal year under this title to any local educational agency or to any State unless the Commissioner finds, in the case of a local educational agency, that the combined fiscal effort of that agency and the State with respect to the provision or vocational education by that agency for the preceding fiscal year was not less than such combined fiscal effort for that purpose for the second preceding fiscal year or, in the case of a State, that the fiscal effort of that State for vocational education in that State for the preceding fiscal year was not less than such fiscal effort for vocational education for the second preceding fiscal year.

3/ Section 123(a)(11).

additional spending carries the full price, as it were--an additional dollar of vocational education services can only come from the expenditure of an additional dollar of State/local monies. This suggests, then, that overmatching cannot be interpreted as resulting from any leverage effect of Federal funds. Rather overmatching is evidence that expenditures for vocational education are consistent with the priorities of State and local decision makers. In cases of overmatching one can only conclude that the only additional spending resulting from the grant-in-aid is the spending of the Federal funds for the specified purpose. 4/ (See Table IV.5.)

Where the amount of State/local spending is approximately equal to that required by the matching provisions of Federal legislation one can more safely conclude that the State/local spending was stimulated by the Federal grant-in-aid. As will be demonstrated below this is the case for some of the vocational education grants in some of the States.

In a more subtle sense Federal grant-in-aid funds can have a leverage effect if they are instrumental in changing the preferences and priorities of State and local decision makers. As States and localities respond to the initial spending incentives created by the Federal program they may revise upward their own preconceptions of the benefits from the program and begin to attach higher priorities to it. Lobby groups will form around the Federal program seeking higher funding levels from both Federal and State/local sources. The interaction of these forces through State/local political processes may explain some or all of the overmatching of Federal funds and in this sense the

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4/As indicated in Appendix A , there may be cases where, with the passage of time Federal funds can substitute for State-local funds that would have been spent for vocational education in the absence of Federal grant-in-aid even with a maintenance of effort provision. In these cases the additional amount spent for vocational education is less than the amount of the Federal grant and State-local funds are shifted to other purposes or tax efforts reduced.

Table IV.5

Discretionary Spending Ratios, by Purpose, by State, 1971

(Discretionary Spending Ratio: State/local spending plus difference between Total Federal spending and Federal spending required by setasides divided by Federal spending required by setasides.)

State	Disadvantaged (Part B)	Post Secondary (Part B)	Handicapped (Part B)	Consumer & Homemaking Education in Depressed Areas (Part F)
Alabama	0.8	11.0	1.0	9.5
Alaska	19.3	8.7	1.4	33.3
Arizona	0.3	8.3	0.3	0.3
Arkansas	2.7	5.4	0.7	15.6
California	1.7	11.7	1.1	INA
Colorado	0.4	10.6	2.9	1.8
Connecticut	3.7	8.3	3.0	7.9
Delaware	1.2	28.9	1.9	1.3
Dist. of Col.	INA	INA	INA	INA
Florida	4.0	8.8	0.9	3.1
Georgia	1.7	6.2	0.3	5.3
Hawaii	INA	INA	INA	INA
Idaho	-0.4	13.0	-0.2	14.0
Illinois	3.8	16.9	1.9	20.9
Indiana	0.6	2.6	2.6	3.3
Iowa	0.6	26.1	1.4	-0.1
Kansas	0.8	7.1	0.9	12.1
Kentucky	0.2	5.5	0.0	11.3
Louisiana	1.7	3.7	0.3	10.6
Maine	-0.0	8.7	-0.0	2.2
Maryland	2.6	7.9	1.9	2.9
Massachusetts	0.7	5.4	0.1	0.3
Michigan	0.0	6.7	0.0	0.1
Minnesota	0.5	25.1	-0.1	0.2
Mississippi	1.1	4.9	0.0	0.3
Missouri	0.1	3.9	0.6	8.9
Montana	0.2	13.4	0.2	0.1
Nebraska	0.2	12.4	0.2	1.7
Nevada	1.6	2.0	1.2	2.1
New Hampshire	0.0	11.0	2.2	3.9
New Jersey	0.4	1.6	0.8	0.7
New Mexico	3.4	6.0	1.7	20.0
New York	7.4	12.5	3.0	34.7
North Carolina	0.8	16.7	0.3	6.8
North Dakota	0.4	11.4	0.4	0.2
Ohio	1.6	2.9	0.5	4.3
Oklahoma	6.2	3.2	0.2	17.5
Oregon	1.0	16.6	1.7	0.2
Pennsylvania	2.2	4.5	0.8	0.3
Rhode Island	2.0	1.8	0.1	6.6
South Carolina	-0.0	1.4	0.1	2.6
South Dakota	3.2	4.1	0.2	4.2
Tennessee	1.0	8.8	-0.0	6.0
Texas	0.8	5.0	0.3	3.7
Utah	1.4	11.6	1.6	-0.2
Vermont	4.9	1.3	-0.1	14.1
Virginia	1.4	2.0	-0.1	12.8
Washington	1.5	20.0	2.0	11.1
West Virginia	0.0	1.2	-0.5	8.5
Wisconsin	0.5	33.8	0.5	0.6
Wyoming	1.1	13.7	1.0	28.3

Source: U.S. Office of Education. "Expenditures for Vocational Education by Source,

Federal funds will have had a leverage effect.

2. Empirical Analysis

Tables IV.6, IV.7, and IV.8 show matching ratios of State/local funds to Federal funds spent on vocational education.

When looked at from the point of view of overall spending, it is clear that in every State for which data are available, State and local expenditures for Secondary and Postsecondary programs far exceed the matching requirements of the 1968 Amendments. In five States, expenditures on Secondary vocational education programs are more than 10 times the required level. While at the Postsecondary level, a few States spend 20 to 30 times the level required. While not universally true, most States likewise significantly overmatch Adult program expenditures. (See Table IV.6.)

If matching ratios are examined by the section of the vocational education act under which the Federal funds were appropriated, it becomes obvious that the bulk of the overmatching occurs in most States due to the overmatching of Part B and, to a lesser extent, Part F of the Act which provide Federal funds for the Basic Grant for Secondary vocational programs and for Consumer and Homemaking education, respectively. Twenty-seven States overmatched Part F funds and nine States overmatched Part B funds eight or more times. In all other parts of the Act, only a few States overmatched to any degree. (See Table IV.7.) The Part B funds which constitute approximately two-thirds of the total Federal appropriation under the 1968 Amendments contain a number of sub-sections, i.e., setasides for Disadvantaged, Handicapped, and Postsecondary. Part F similarly provides that a portion of the appropriation be set aside for depressed areas. An examination of matching ratios for these four target categories indicates wide variations between States with significant numbers of States undermatching the setasides for the Disadvantaged, Handicapped, and the depressed area portion portion of Part F funds. (See Table IV.8) It can be seen in Table IV.8 that Federal funds were not matched at the State/local level in 28 States for the Disadvantaged, 27 States for the Handicapped, and 13 States for the Part F - economically depressed area setasides.

Table IV.6
Matching Ratios State/Local to Federal Vocational Education Expenditures by Level, Part B Funds, 1971

	Secondary	Postsecondary	Adult
Alabama	1.7	21.8	0.6
Alaska	7.4	4.5	0.7
Arizona	2.6	3.5	0.6
Arkansas	1.8	1.5	1.3
California	5.7	5.7	5.7
Colorado	6.8	3.3	13.5
Connecticut	8.2	9.0	7.3
Delaware	4.9	29.4	INA
Dist. of Col.	INA	INA	INA
Florida	5.6	3.8	36.7
Georgia	5.1	1.8	8.5
Hawaii	INA	INA	INA
Idaho	2.8	2.6	0.9
Illinois	11.0	13.6	5.9
Indiana	1.6	2.4	1.1
Iowa	5.7	6.4	4.6
Kansas	3.0	2.9	1.5
Kentucky	3.3	4.7	1.6
Louisiana	1.7	1.2	1.3
Maine	3.9	4.6	5.3
Maryland	12.8	5.7	2.1
Massachusetts	14.5	4.7	15.6
Michigan	2.2	4.1	8.7
Minnesota	9.2	3.0	6.3
Mississippi	3.5	2.1	3.7
Missouri	3.0	3.3	2.4
Montana	2.9	3.6	1.3
Nebraska	2.0	5.0	6.4
Nevada	1.9	1.4	1.3
New Hampshire	2.6	7.5	0.5
New Jersey	2.8	1.0	9.6
New Mexico	3.0	1.6	1.5
New York	0.0	0.0	0.0
North Carolina	4.6	7.6	INA
North Dakota	1.8	3.3	1.0
Ohio	8.6	2.1	15.3
Oklahoma	5.8	1.3	4.0
Oregon	6.0	5.3	6.2
Pennsylvania	10.8	2.6	5.4
Rhode Island	7.4	7.7	0.4
South Carolina	2.4	1.0	3.1
South Dakota	1.5	2.0	1.0
Tennessee	3.5	2.5	2.5
Texas	5.7	2.2	0.6
Utah	7.3	6.2	1.6
Vermont	12.4	1.1	INA
Virginia	3.7	1.1	5.9
Washington	5.8	5.6	5.0
West Virginia	2.1	1.1	0.8
Wisconsin	1.0	19.1	4.4
Wyoming	5.5	5.7	5.0

Source: U.S. Office of Education. "Expenditures for Vocational Education by Source, Purpose, and Level," O.E. Form 3131. Washington, D.C. 1971.

Table IV.7

Matching Ratios, State/Local to Federal Vocational Education Expenditures by Part of the Act, 1971

State	Setasides Part A	Target Population Part B	Research & Training Part C	Exemplary Programs Part D	Consumer Education Part F	Cooperative Programs Part G	Work-Study Programs Part H
Alabama	0.1	3.2	0.1	0.0	9.2	0.4	0.2
Alaska	0.8	5.6	2.5	2.6	16.4	1.0	4.4
Arizona	0.1	2.5	0.4	0.0	10.7	1.8	0.3
Arkansas	0.0	1.6	0.5	0.1	9.0	0.0	0.3
California	INA	5.7	INA	0.1	INA	INA	INA
Colorado	1.1	5.0	0.1	0.4	10.1	0.2	0.2
Connecticut	0.3	8.3	1.1	0.2	17.1	0.4	0.3
Delaware	0.0	8.9	0.1	0.0	1.2	1.4	0.3
Dist. of Col.	INA	INA	INA	INA	INA	INA	INA
Florida	0.0	5.7	1.9	0.0	13.8	0.0	0.2
Georgia	0.0	3.2	0.2	0.0	9.2	0.6	0.5
Hawaii	INA	INA	0.2	INA	INA	INA	INA
Idaho	0.1	2.6	0.1	0.0	10.5	0.0	0.3
Illinois	8.5	11.3	0.6	2.5	6.3	2.6	1.3
Indiana	0.0	1.7	0.3	2.0	6.7	2.8	0.6
Iowa	0.0	6.1	0.7	0.0	3.9	0.2	0.7
Kansas	0.2	2.8	0.2	0.0	4.2	0.4	0.3
Kentucky	0.0	3.5	0.3	0.0	10.5	0.0	0.3
Louisiana	0.1	1.4	0.4	0.0	7.1	1.0	0.5
Maine	0.0	4.0	0.2	0.0	6.3	0.0	0.7
Maryland	0.5	10.0	0.1	0.3	39.6	2.3	0.2
Massachusetts	0.0	13.0	0.4	10.1	1.5	9.2	2.2
Michigan	0.0	3.0	0.2	0.3	2.8	0.1	0.8
Minnesota	0.4	4.2	0.3	0.0	9.0	1.3	0.6
Mississippi	0.3	2.8	1.3	0.0	7.6	0.4	0.3
Missouri	0.0	3.0	0.3	0.0	10.2	0.7	0.3
Montana	0.1	3.2	0.0	0.0	7.7	0.5	0.5
Nebraska	0.0	3.1	0.1	0.0	7.6	0.0	0.2
Nevada	1.6	1.7	0.3	0.0	1.8	0.0	0.4
New Hampshire	0.0	3.3	0.3	0.2	11.5	0.0	0.2
New Jersey	0.7	2.6	0.3	3.0	0.8	1.1	1.1
New Mexico	0.2	2.2	0.3	0.2	9.4	0.6	0.3
New York	0.0	2.2	0.2	0.0	18.7	0.0	1.3
North Carolina	0.0	6.4	0.3	0.0	2.4	0.1	0.2
North Dakota	0.0	2.4	0.4	0.0	9.9	0.1	0.5
Ohio	0.0	8.8	0.1	0.0	14.9	0.1	0.3
Oklahoma	0.0	4.1	0.4	0.0	8.9	1.0	0.3
Oregon	0.3	5.7	0.3	0.4	0.2	0.2	0.7
Pennsylvania	0.6	8.0	0.4	0.0	1.0	0.5	0.6
Rhode Island	0.4	6.0	0.6	0.1	4.6	0.3	0.3
South Carolina	0.0	2.2	0.5	0.1	1.0	0.0	0.5
South Dakota	0.0	1.7	0.4	0.0	8.7	0.0	0.3
Tennessee	0.0	2.9	0.3	0.0	7.0	0.0	0.2
Texas	0.0	3.7	0.1	1.7	16.5	0.0	0.2
Utah	0.4	6.5	0.3	0.0	14.1	0.0	0.5
Vermont	0.0	10.8	0.2	0.0	14.1	0.0	0.3
Virginia	0.0	2.9	0.1	0.0	10.0	0.0	0.2
Washington	1.1	5.6	1.7	1.0	12.8	1.5	1.1
West Virginia	0.0	1.7	0.4	0.0	4.6	0.0	0.3
Wisconsin	0.0	8.0	0.2	0.5	4.6	0.3	0.3
Wyoming	0.6	5.5	0.3	0.0	16.3	0.3	0.4

Source: U.S. Office of Education. "Expenditures for Vocational Education by Source, Purpose, and Level." O.E. Form 3131. Washington, D.C., 1971.

Table IV.8
Matching Ratios of State/Local Outlays to Federal Outlays for Set-aside Purposes, 1971

State	Disadvantaged	Handicapped	Postsecondary	Depressed Area (Part F)
Alabama	0.5	0.5	20.2	7.9
Alaska	5.5	1.4	4.0	21.0
Arizona	0.6	0.1	3.3	0.4
Arkansas	1.3	0.6	1.4	13.1
California	INA	INA	INA	INA
Colorado	0.6	2.2	3.1	1.8
Connecticut	3.0	1.7	8.9	9.3
Delaware	0.8	1.4	29.4	0.7
Dist. of Col.	INA	INA	INA	INA
Florida	1.9	0.7	3.7	2.8
Georgia	0.8	0.3	1.7	5.1
Hawaii	INA	INA	INA	INA
Idaho	0.1	0.0	2.2	8.9
Illinois	2.4	1.9	12.0	6.3
Indiana	0.4	2.3	2.4	3.2
Iowa	0.8	1.2	6.0	0.3
Kansas	1.1	1.0	2.6	4.3
Kentucky	0.1	0.2	3.6	10.6
Louisiana	1.5	1.1	1.2	10.0
Maine	0.0	0.0	3.5	1.4
Maryland	3.3	3.0	4.7	4.1
Massachusetts	0.7	1.6	4.6	19.6
Michigan	INA	0.2	3.7	0.1
Minnesota	0.3	0.1	4.6	0.2
Mississippi	0.7	0.3	2.1	0.1
Missouri	0.3	0.0	2.4	12.6
Montana	0.1	0.0	3.5	0.1
Nebraska	0.5	0.5	3.9	1.7
Nevada	1.2	1.2	1.0	1.8
New Hampshire	0.1	1.6	6.9	9.7
New Jersey	0.6	0.6	1.0	0.4
New Mexico	2.3	1.3	1.5	12.6
New York	5.3	2.1	10.0	18.7
North Carolina	0.5	0.2	6.7	2.6
North Dakota	0.5	0.3	2.9	0.4
Ohio	1.1	0.2	2.1	2.5
Oklahoma	3.1	0.1	1.2	8.3
Oregon	0.7	1.2	4.3	0.3
Pennsylvania	1.4	1.0	2.5	0.9
Rhode Island	2.0	0.1	7.1	5.8
South Carolina	0.1	0.0	1.0	1.0
South Dakota	1.4	1.6	1.7	4.2
Tennessee	0.5	0.0	2.5	6.0
Texas	1.4	0.0	2.3	5.9
Utah	0.8	2.2	5.3	0.0
Vermont	0.9	0.0	1.1	9.7
Virginia	1.9	1.1	1.1	3.8
Washington	1.6	3.5	4.9	8.1
West Virginia	0.4	0.3	1.0	3.8
Wisconsin	0.3	0.4	16.6	0.1
Wyoming	0.9	0.8	3.6	20.2

Source: U.S. Office of Education. "Expenditures for Vocational Education by Source, Purpose, and Level." O.E. Form 3131. Washington, D.C., 1971.

Regression analyses were run to attempt to identify those factors which influence the States to spend more than required by the Federal setasides. A correlation of .583 was found to exist between the States' average per pupil expenditure and the degree of additional spending on the disadvantaged, and .389 for additional spending on the handicapped. Relating per capita expenditures on education by State to additional spending on the disadvantaged indicated a correlation of .659 and to additional expenditures on the handicapped a correlation of .346. All of these measures, significant at the .01 level, indicate a relationship between the States' priority on education and the effort they make to provide vocational education for the disadvantaged and to a lesser extent for the handicapped. No significant correlation was found to exist between the priority placed on education and the additional spending on postsecondary education or economically depressed areas.

These correlations may be explained by the high correlations between per capita income by State and the average per pupil expenditure and per capita school expenditures of .775 and .626 respectively. It appears that the priority which a State places on education, as revealed in its expenditures, is highly related to the wealth of the State and tends to benefit vocational education for the disadvantaged and to a lesser extent for the handicapped. This would also explain the lack of correlation with additional spending for economically depressed areas since they are less likely to be found in the wealthier States.

CHAPTER V

Conclusions & Policy Recommendations

This study of the State grant mechanism permits the following policy question to be addressed: Can the attainment of Federal goals be furthered by modifying Federal legislation or administrative guidelines with respect to the State grant mechanism? This question is logically separate from the question of set-asides. Each set-aside in effect creates a separate categorical grant and for each grant the question of the State grant mechanism then becomes relevant. Consider first the range of alternatives:

1) The Federal government could bypass the States and make vocational education grants directly to local educational agencies as is done under the impacted area program and as was done under the original Title III of the Elementary and Secondary Education Act of 1965. This is an ultimate solution of the State grant mechanism problem but would create a whole host of administrative and political difficulties. A formula could no doubt be developed that would distribute the funds. The task would not be easy because the problem of extreme variation in the fiscal capacity of local school systems would have to be addressed through either an explicit recognition of fiscal capacity in the formula or variable matching ratios, both with their attendant data requirements. Adjusting the formula to changes in State support of local school systems would be particularly difficult. Any attempt to evaluate and coordinate the vocational education programs supported through such a program of direct Federal aid would require a major administrative effort by the Office of Education. Such a plan would undermine, if not eliminate, any State role in vocational education and would surely be met with political resistance from governors, State legislatures, and State departments of education.

2) Federal legislation could specify a formula to be used by the States in distributing Federal vocational education funds to localities. Such an arrangement would be only superficially different from the first option. The administrative burden could be shifted to the States but State power would still be eroded as localities would expect to get their prescribed share of the Federal funds without having to show that their vocational education programs are in accordance with a State plan.

3) Federal legislation could specify that a formula be used by the States in distributing Federal vocational education funds to localities but could leave each State free to establish its own formula. States are free under the terms of the 1968 Amendments to adopt such a plan.1/ As indicated above, few States follow this approach, presumably because of the difficulties in developing an appropriate formula and because of the loss of direct State influence on the vocational education programs conducted at the local level that would result from such a policy. For Federal legislation to insist that States develop and use a formula in distributing Federal funds would be to weaken the State role in vocational education.

4) Federal legislation could retain the references to State grant mechanisms contained in the 1968 Amendments. These references to manpower needs for vocational education, local fiscal capacity, excess program costs, tax effort, depressed areas, and areas of high youth unemployment and dropout rates do not impose binding conditions on the States. They are termed factors to be considered in allocating Federal funds to localities. The guidelines provided to the State for defining these terms also provide a good deal of latitude.2/ Such provisions in Federal legislation can have several salutory effects. They serve to clarify Congressional intent

1/ U.S. Office of Education, Guide for the Development of a State Plan for the Administration of Vocational Education under the Vocational Education Act of 1968 (Washington, D.C.: May, 1970), p. 13.

2/ See "State Vocational Education Programs," Federal Register, Vol.35, No. 91,May 9, 1970.

to administrators at the State and local level. They do require State officials to make explicit and public the mechanism actually used to allocate funds to localities. The language of the Federal legislation can facilitate a political process within States that permits local vocational education administrators to advance compelling arguments for the funding of their programs. That is, if a local administrator can show that some of the factors mentioned in the Federal legislation apply in a significant or unique way to his programs, the case for funding the programs is substantially increased. State administrators can refer to these guidelines in providing leadership and coordination to the total program of vocational education in their State.

5) The Federal government could move to a block grant (special revenue sharing) for vocational education. Such an action would imply not only dropping all references to State grant mechanisms in the Federal legislation but also eliminating the separate appropriations for the disadvantaged, research and training, exemplary programs and projects, consumer and home-making education, cooperative programs, and work study programs. The specific set-asides for disadvantaged, handicapped, and postsecondary programs would also be dropped if a block grant were instituted. Such a fiscal arrangement would enable States to allocate Federal funds to programs and localities in a manner fully consistent with their own priorities. If this were done spending for Federal priorities that currently takes place as a result of the several categorical grants, set-asides, and guidelines for State grant mechanisms that are included in the 1968 Amendments would presumably diminish as long as such spending was not consistent with State priorities. It is impossible, of course, to predict just what types of spending, for which population groups, would be affected.

6) Cities of 250,000 population and over might benefit from more direct access to Federal vocational education funds than the State grant mechanisms provide.

Cities in this category, by submitting a City Plan for Vocational Education to the U.S. Commissioner of Education,could become eligible for participation in the Federal funding for vocational education. The distribution of funds to cities in this category would be based on the same population formula used presently in the States. The State's share of funds would be reduced by the amount distributed directly to the applicant city. The city would not be eligible for additional Federal funds from the State Vocational Education Agency. This approach would eliminate the criticism that burdensome and costly delays occur in the receipt of Federal funds by cities under the State grant mechanism.

7) Federal legislation could specify additional set-asides or increase the portion of total appropriations to be used for existing set-asides. This approach is independent of the question of State grant mechanisms. Even if funds are designated for a very narrowly defined purpose the problem of distributing Federal allotments among local educational agencies would still exist.

Among the possibilities for new set-asides are:

a. Vocational education in non-agricultural occupations in rural areas,

b. Vocational education in urban areas,

c. Vocational education in new and emerging occupations.

(The Commissioner of Education would provide a list of such occupations each year with the requirement that individual occupations would stay on the list for at least five years and that notice of an occupation to be dropped from the list would be given at least two years in advance.)

Such a policy would focus Federal aid more narrowly on Federal priorities and might serve to break the hold of traditional and ongoing programs on Federal funds.

8) Federal legislation could alter the matching requirements for Federal funds. Presuming that many vocational education programs are consistent with State and local educational priorities, the dropping of the matching requirement could allow Federal funds to be more easily targeted toward Federal objectives. This policy would be particularly appropriate if additional set-asides were specified or if the focus of Federal aid were narrowed in some other way.

This review of policy alternatives suggests that the approach of the 1968 Amendments to the dilemma posed by Federal objectives and local program implementation is an appropriate one. It fits contemporary American federalism. The potential advantage of a movement toward greater Federal control of the allocation of funds for vocational education, via direct grants to localities or further specification of State grant mechanisms, or toward block grants seem outweighed by the attendant disadvantages. Therefore, it would seem that the present approach should be continued. Moreover, the Tydings Amendment should be extended. This provision of Federal law permits unobligated Federal funds to be carried forward at the end of a fiscal year and used for the same purpose during the subsequent fiscal year. This permits more flexibility in the use of Federal funds, particularly when Federal appropriations are delayed until after the start of or until well into the fiscal year. In the absence of this provision there would be a strong incentive to spend or obligate Federal funds before the end of the fiscal year to avoid having unobligated balances deducted from next year's allotment.3/ Rather than fund ill-conceived projects or make last minute purchase of equipment, the carry-over of funds seems preferable

3/See the Federal Register, Vol. 35 No. 91, May 9, 1970 for the regulations that would apply to vocational education funds in the absence of the Tydings Amendment. For the text of the Amendment see A Compilation of Federal Education Laws, Committee of Education and Labor, House of Representatives, October 1971, p. 13.

Some changes in the formula used by the U.S. Office of Education to distribute Federal funds to the States may, however, be in order. The small amounts allocated to some States under some parts of the Vocational Education Act and the subsequent fractionalization of these amounts of Federal funds in the process of the States allocating these funds to local education agencies may reduce the amount distributed to school systems below the point where they can be used effectively or where they can have an impact on local expenditures.

In part, this problem has been resolved in some States by using the Federal funds identified for specific target populations as seed money to induce local education agencies to begin special programs after which the agency maintains the program out of local funds. All monies alloted to a State for such special use may then be distributed by the State to a few communities resulting in large enough amounts being available to a school system to have an impact. This mechanism, however, will not totally resolve the problem of very small allotments which many States receive under several parts of the Act.

Another series of related problems arises at the State and local levels when efforts are made to respond to the priorities specified in the Federal legislation. The States are frequently unable to distribute Federal funds to local school systems on the basis of the criteria specified in the Vocational Education Act due to a lack of local data on these criteria.

Problems also arise in developing quality programs in priority areas. It appears that in many of the States Federal technical assistance as well as funds would be welcomed to assist in developing such data and to assist the States and communities in providing quality planning and programs in many of the areas identified as Federal priorities.

APPENDIX A

The Theory of Intergovernmental Grants Applied to Vocational Education

The theory of intergovernmental grants is an adaptation of the standard economic theory of consumer behavior. The consumer, in this case the decision makers for state or local government educational agencies, is presumed to have a set of preferences for different levels of spending for public education and for different mixes of educational expenditures as among alternative program areas.[1/] These preferences can be described by sets of indifference curves between expenditures on a particular educational program and expenditures on all other educational programs or on private goods, as in Figure 1. Each indifference curve represents combinations of expenditures on the particular program -- vocational education in this example -- and all other types of educational expenditures that are equally satisfactory (or preferable). [2/]

In the absence of any grant-in-aid the government in question would choose the combination of expenditures indicated by point P where an indifference curve, I, is tangent to the budget line MN showing all the combinations

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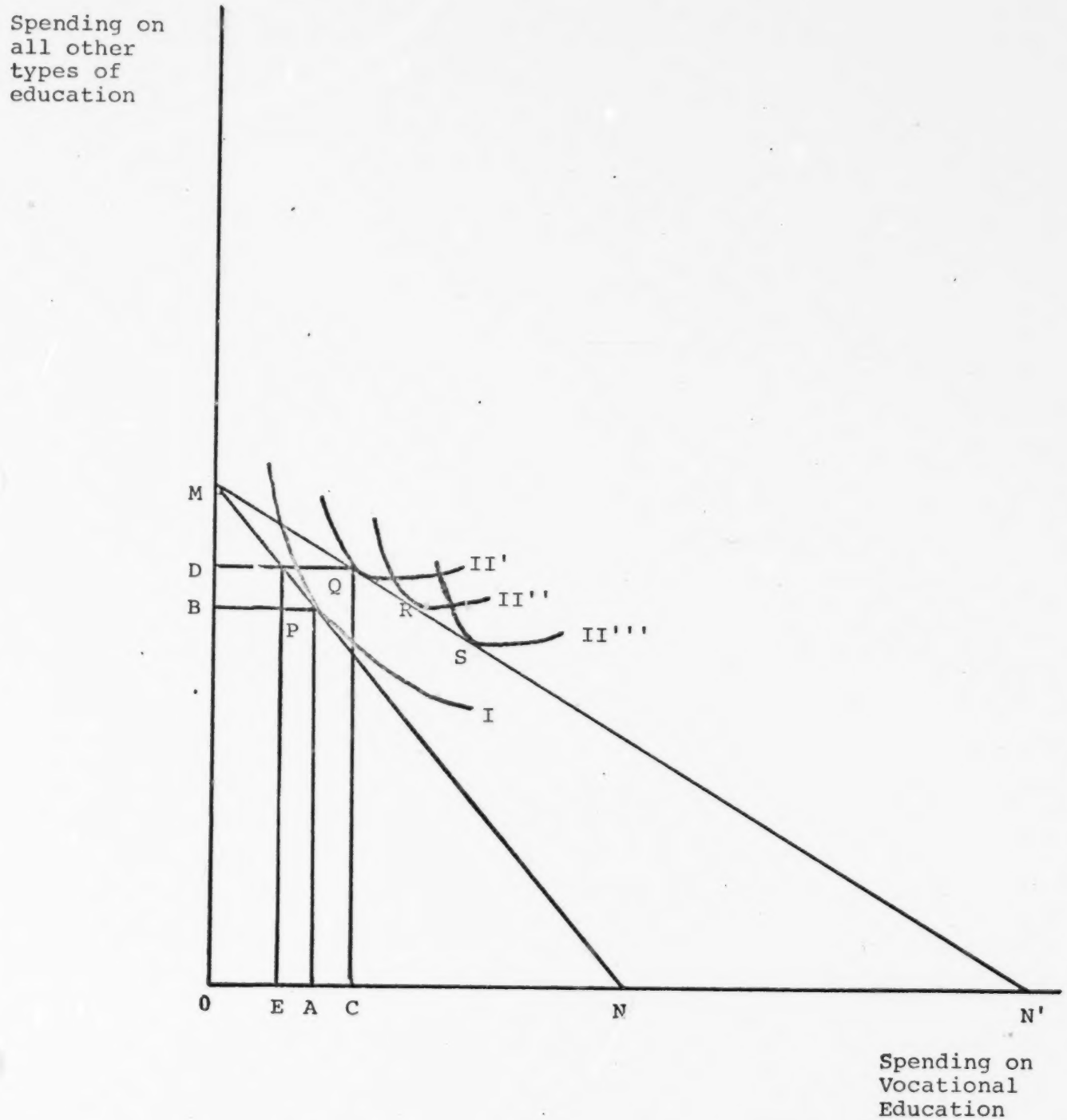
1/ It is assumed for purposes of this discussion that educational agencies have fixed budgets at any given point in time that can be allocated among different educational programs. A more complete model would explicitly treat preferences for all types of education as compared with other types of public expenditures and preferences for all types of public expenditures as compared with private expenditures.

2/ It is convenient to think of these indifference curves as representing social preference functions. Contemporary economic theory suggests that social preference functions cannot be derived from individual preference functions, and hence the social preference function is not a meaningful concept to use. Wallace E. Oates has shown that the conclusions drawn from using social preference functions in the analysis also hold for the more realistic assumption that decision makers for governmental units follow majority rule voting in reaching collective choices. (See his Fiscal Federalism (New York: Harcourt Brace Jovanovich, 1972), pp. 105-110.) For ease of exposition this discussion uses the social preference function approach.

Figure 1


Spending on all other types of education
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Spending on Vocational Education

of vocational education and other types of education that the government agencies can afford, given the agencies' total budgets. The slope of MN is equal to unity, showing that one dollar's worth of vocational education exchanges for one dollar's worth of other types of education. The amount OA is spent on vocational education and OB on all other types.

If an open-ended matching grant is made available for vocational education using a 50:50 matching ratio the budget line shifts to MN' making vocational education cheaper relative to all other types of education. The recipient government responds by shifting the pattern of expenditures to a point of tangency between the new budget line MN' and an indifference curve, II, lying farther away from the origin. The precise location of the point of tangency, such as Q, R, or S depends on the nature of the recipient government's preferences. The usual expectation is that it is at a point like Q where OC is spent on vocational education, funded by OE of the recipient government's funds and an equal amount, EC, of the grantor's funds. In this case spending on other types of education has also increased by BD as the recipient government substitutes the grant funds for its own spending on vocational education by an amount equal to EA (EA=BD).

The typical response where the recipient government, in part, substitutes grantor funds for its own naturally induces the grantor to require the maintenance of fiscal effort by the recipient government. This case is illustrated by Figure 2. The recipient government is prohibited by the terms of the grant from reducing its own expenditures on vocational education, OA, and an equal amount of the grantor's funds are spent, AF, so that the new pattern of expenditures is described by point R. This places the recipient government on a lower indifference curve, IIa, than II which would have been achieved in the absence of the maintenance of effort provision. At R the welfare of

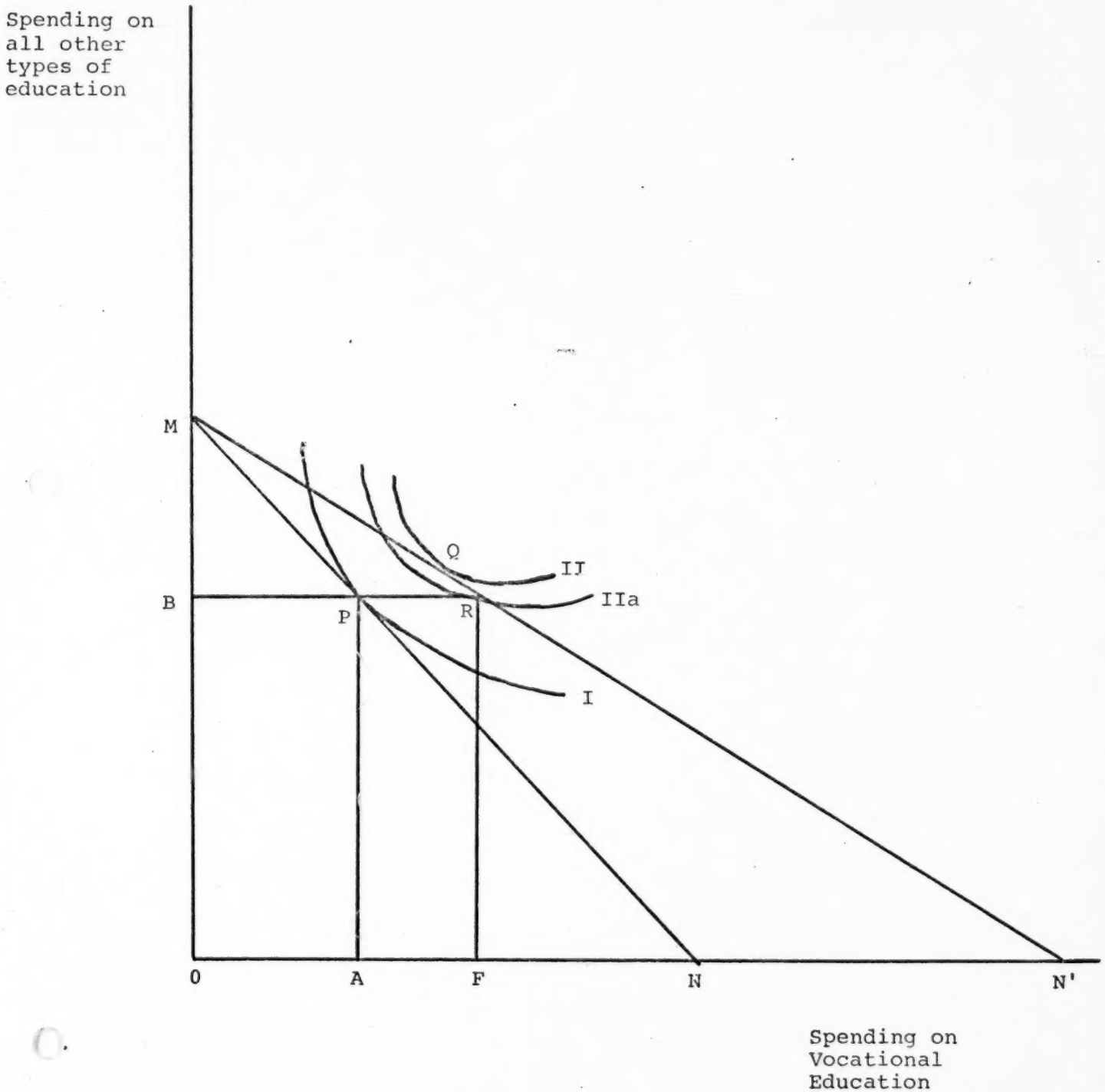
the recipient community is lower than it would be at Q, but presumably the additional spending for vocational education is consistent with the preferences of the grantor government.[3/]

Neither Figure 1 nor Figure 2 fits the Federal program of aid for vocational education because those grants are not open-ended; they are limited to amounts appropriated by Congress. Figure 3 better describes the situation by illustrating a closed-ended grant with a 50:50 matching provision and a maintenance of effort provision. If the grant is limited to AF dollars and the recipient government is initially spending at point P and the spending, OA, is declared as matching funds for the grant AF then the spending pattern moves to R. Spending for vocational education has been increased but only by the amount of the grant. The grant is "over-matched," i.e., OA:AF 50:50 but this is not evidence of any stimulative effect of the grant. As indicated in the main body of this paper, this kind of overmatching of Federal dollars with State-local dollars is typical of vocational education.

With the passage of time the budget line will shift outward as the budget of the recipient educational agency increases. As long as the amount of the grant and the matching requirement remain unchanged there will be a tendency for the spending pattern to shift from R to T. At R the indifference curve IIa is not tangent to the budget line MN' reflecting the impact of the maintenance of effort provision. As the budget line shifts to M"N" a point of tangency is reached at T where the pattern of spending is once again fully consistent with the priorities and preferences of the decision makers for the recipient government. Any shift of the budget line out beyond M"N" will

3/ The terms grantor and recipient are used here because they fit both the case of the Federal government making grants to States and the case of the States making grants to localities.

Figure 2


Spending on all other types of education
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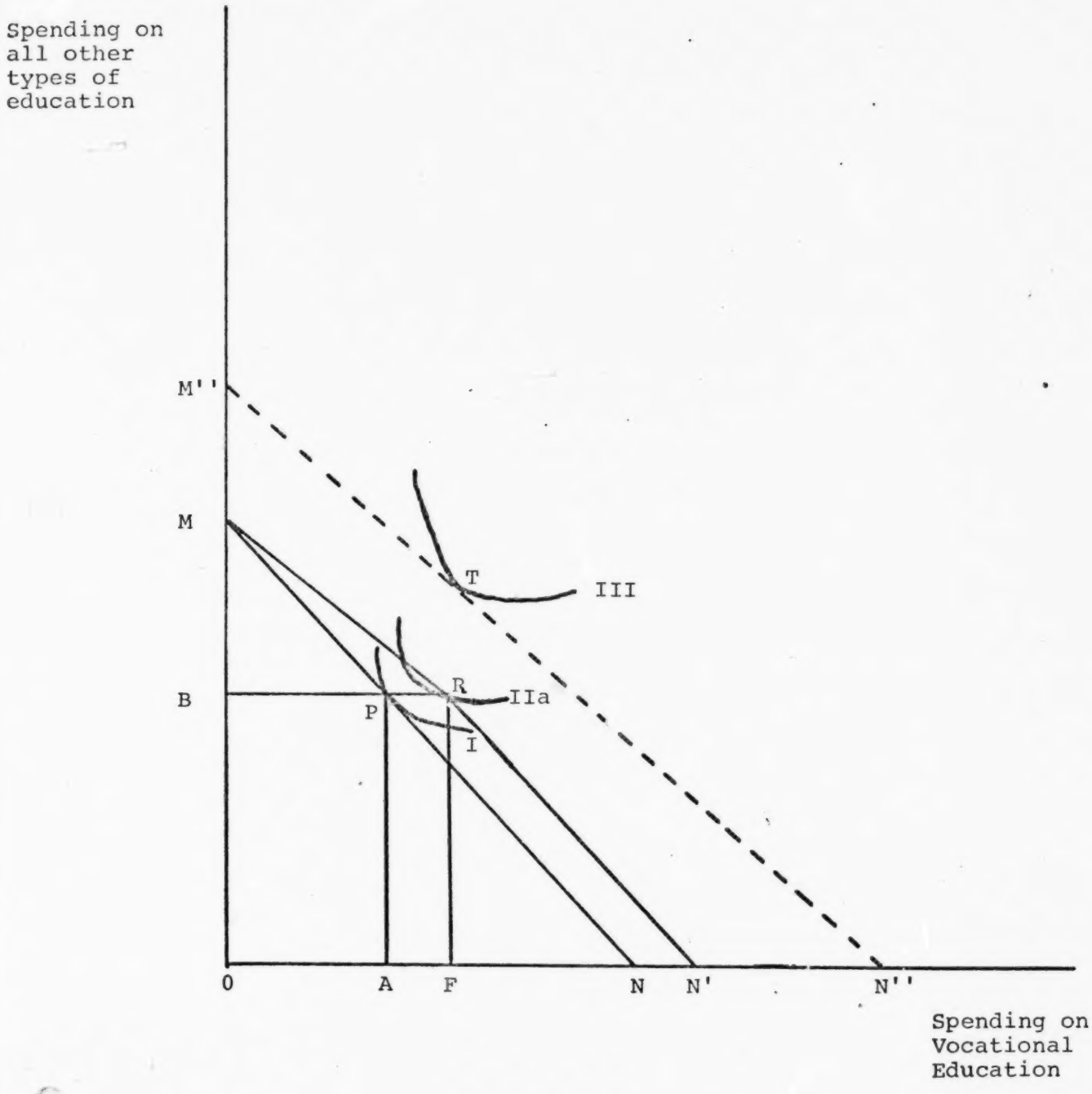
Spending on Vocational Education

Figure 3


Spending on all other types of education
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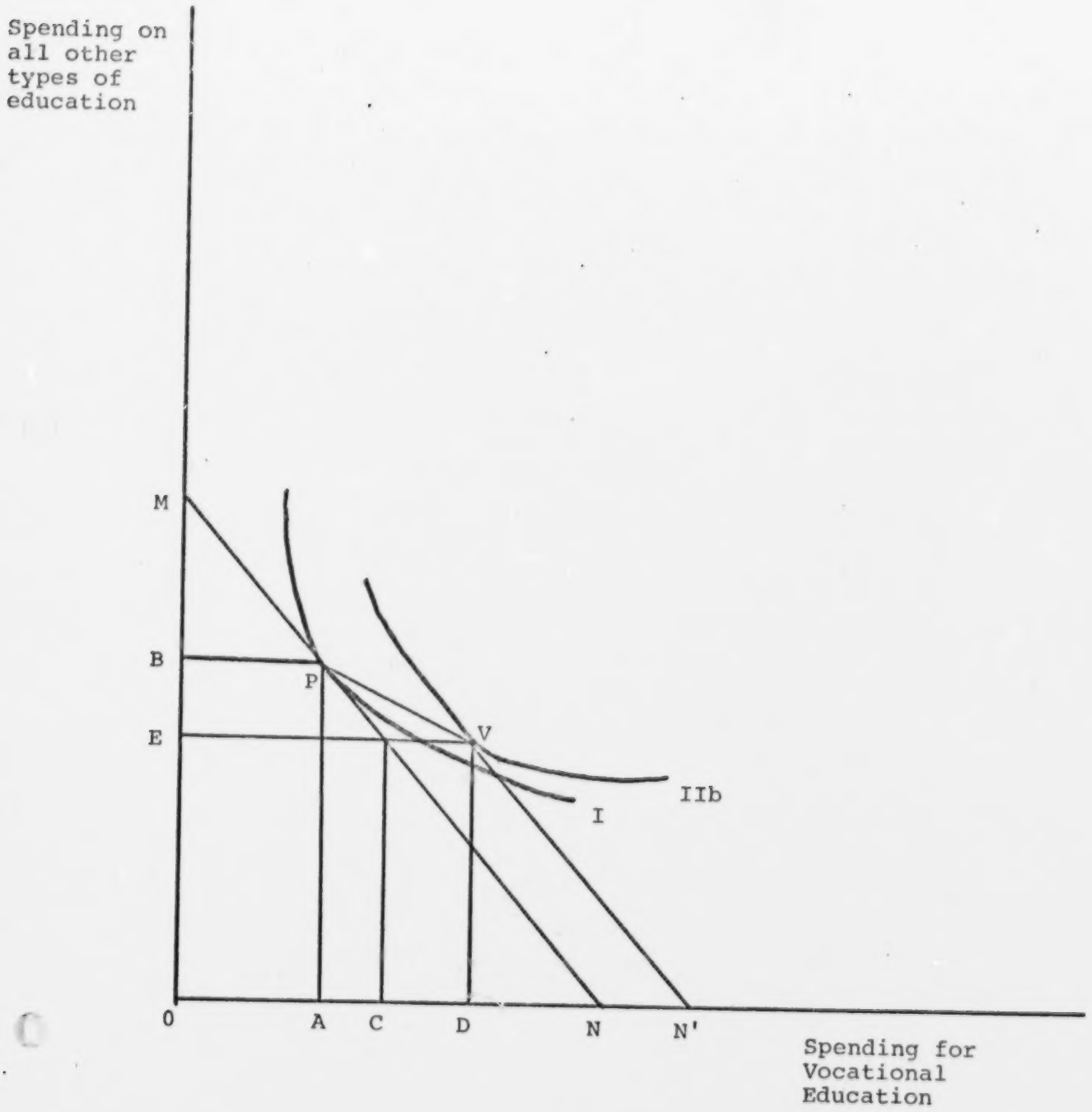
Spending on Vocational Education

likely result in increased spending, both for vocational education and for other types of education; the degree of "overmatching" will then increase, but the increased spending of the recipient government's revenues on vocational education cannot be attributed to the "stimulus" or leverage effect of Federal funds. Rather, it simply reflects preferences in the recipient community. The smaller the grant is relative to the recipient government's expenditure of its own funds, the more quickly a point like T is reached. Once that point is reached the effect of the grant is no different from the effect of a "no strings attached" grant of AF dollars to the recipient government.

The terms of a grant could be specified so as to stimulate additional spending on the part of the recipient government for the purposes supported by the grant-in-aid. This case is illustrated by Figure 4. If the maintenance of effort and matching provisions are worded so as to require that new spending by the recipient government be used for matching purposes then the budget line would appear as MPVN'. Additional spending for vocational education is seen as costing half-price by decision makers for the recipient government up to the level of OD where the cost of the increment, AD, is split; the recipient's share of this incremental cost, AC, equals the grant of CD. To spend AC of additional funds on vocational education the recipient community must forego BE spending on other types of education or must reduce spending on other public purposes or reduce private spending through increased taxes. If the grant, CD, is relatively large, it is likely that a point of tangency of an indifference curve will occur along the segment of the budget line PV, meaning that the recipient government would not accept the full amount of the grant offered under these terms. This type of grant, then, can stimulate additional recipient government spending for the aided purpose even though overmatching is present. This type of grant is not, however, used in the vocational education

Figure 4


Spending on all other types of education
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Spending for Vocational Education

program. For such a grant to achieve the purpose of stimulating additional recipient government spending, accounting procedures must be accurate enough to distinguish between new spending for the aided purpose and the reclassification of current spending. Even with this type of grant the stimulative effect of any closed-ended grant would wear off over time as the budget line shifted out.

There is another set of circumstances where spending by a recipient government can be stimulated by a matching grant. If the recipient government is not initially spending anything for the aided purpose a matching grant may induce them to spend some of their own funds for that purpose. Figure 5 illustrates this case. Initially an indifference curve, I, passes through the point where the budget line cuts the vertical axis. The new budget line MUN' allows the recipient government to buy vocational education at half-price over the segment of the budget line MU. A higher indifference curve, II, may be tangent to MU and spending for vocational education at the level of OK will take place. Spending of the recipient government equal to OJ has been stimulated but there is no overmatching. If the grant is relatively small no indifference curve may be tangent along MU but a higher indifference curve will pass through point U and the entire grant will be used. It is also possible that the preferences of the recipient government will be so configured that the initial indifference curve, I, will lie entirely above MU and the recipient government will then not respond to the grant offered. Only a more generous matching ratio would stimulate the recipient government to accept the grant and spend some of its own funds for the aided purpose.

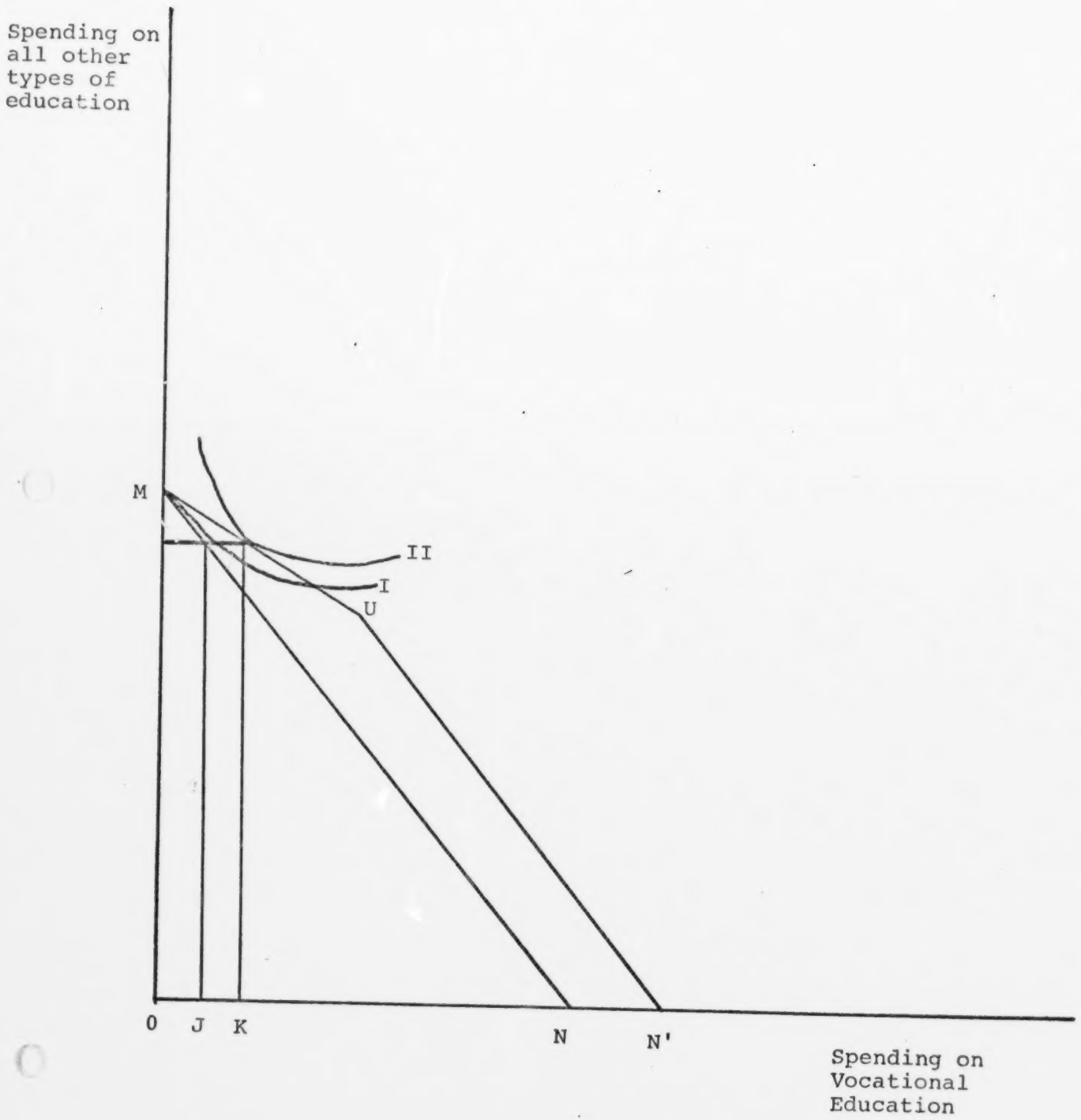
There is some evidence, contained in the main body of this paper, that for some of the more narrowly defined Federal vocational education grants, spending in several States has been stimulated in the manner illustrated by

Figure 5. This seems particularly to have been the case with respect to vocational education for the handicapped.

The establishment of a grant-in-aid for a particular purpose may also set in motion forces that act to alter the preferences and priorities of recipient government decision makers so that indifference curves shift "in favor of the aided expenditure purpose." That is, points of tangency move downward along budget lines. The Federal program of aid for vocational education has probably made State and local educational officials more aware of the need for vocational education and its potential benefits. In this indirect manner State-local spending for vocational education may have been stimulated but it would not be possible to measure such a leverage effect.

In summary, the theory of intergovernmental grants indicates that overmatching is not evidence of a leverage effect of grant funds and that only under certain rigid conditions are closed-ended grants likely to stimulate spending on the part of the recipient government and that, as long as the amount and terms of the grant stay the same, the stimulative effect will be dissipated over time.

Figure 5


Spending on all other types of education
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Spending on Vocational Education

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Appendix A

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APPENDIX B

Regression Analysis of Discretionary Spending Ratios: The Setaside Provisions of the 1968 Amendments to the Vocational Education Act of 1963

The Dependent Variables: Discretionary Spending Ratios

To measure the extent to which States and localities have responded to the Congressional priorities expressed in the 1968 Amendments to the Vocational Education Act of 1963, the following ratio was calculated, using 1971 data for each of the four setasides mandated by Congress:

$$\frac{\text{State/Local Spending} + (\text{Total Federal Spending} - \text{Required Federal Spending})}{\text{Required Federal Spending}}$$

The required Federal spending is determined by the four setaside provisions: 15 percent of the basic grant (Part B funds) for the disadvantaged and for postsecondary education, 10 percent of the basic grant for the handicapped, and one third of the grant for consumer education and homemaking (Part F funds) for depressed areas. If States use more than the required amount of Federal funds for the particular purpose that increment along with State-local spending for the particular purpose appears in the numerator. These discretionary spending ratios appear in the main body of this paper as Table V.1. These ratios indicate the degree to which States and localities make spending decisions that are consistent with Federal priorities. Under the terms of the 1968 Amendments States are under no obligation to match the Federal funds spent in accordance with the dictates of the setaside provisions of the Act. Part B funds and Part F funds do have to be matched but only in the aggregate. That is, a State could spend its own funds, only on the secondary level, for non-disadvantaged and non-handicapped children. If this spending at least equalled the total grant for Part B, the matching requirement will have been

met. Thus the smallest value that these ratios can usually take is zero. [1] The ratios rise above zero as States spend either their own funds, or Federal funds in addition to the required amount, or both, for the setaside purpose. Data were not available for two or three States.

The Independent Variables

The following independent variables for each State were used in the four sets of regression equations:

Per capita income, 1970

Percent increase in State-local spending for vocational education, 1969-1971

Average per pupil expenditures for elementary and secondary education, 1971

Per capita expenditures for elementary and secondary education, 1971

Enrollments in public two-year institutions of higher education, fall, 1970, as a percent of total population age 18-24, 1970

Percent population living in poverty, 1969

Percent population living in SMSA's, 1970

Not all variables were used in each set of regressions; the variables were selected on the basis of an a priori rationale that the variable might be expected to influence the particular discretionary spending ratio in question. These independent variables are presented in Table B.5.

1/ The ratios can be negative if a State spends none of its own funds for the setaside purpose and fails to spend Federal funds equal to the required setaside. At this point the State has not violated the terms of the Act because of the operation of the Tydings Amendment that permits States to carry unobligated balances forward to the next Fiscal Year. This means that the spending of Federal funds to meet the setaside requirements can be spread into the next Fiscal Year. As indicated in Table V.1, in 12 cases the discretionary spending ratios are negative for this reason.

The Results

The results of the regression analysis are presented in Tables B.1 to B.4. The analysis of the discretionary spending ratio for the disadvantaged showed the most encouraging results. About half of the variation in this ratio among the States is associated with differences in the incidence of poverty, levels of spending for elementary and secondary education, and the percentage increase in State-local spending for vocational education between 1969 and 1971. See equations 4, 5, 8, and 9 in Table B.1. The estimated coefficients for both the incidence of poverty and the level of school spending are positive and statistically significant. It seems reasonable to conclude that the higher the incidence of poverty and the higher the general level of school spending in the State, the greater the discretionary spending for vocational education for the disadvantaged will be relative to the set-aside amount.

The results of the regression analysis of discretionary spending ratios for postsecondary education are not nearly so encouraging. None of the equations explain more than eight percent of the variation in the ratios; the ratio of enrollments in public two-year institutions of higher education to the population aged 18 to 24 is a significant explanatory variable. In effect this variable measures the extent of a State's commitment to two-year postsecondary education. The addition of other variables did not increase the coefficient of determination when adjusted for degrees of freedom.

None of the variables used in the analysis of the discretionary spending ratios for the disadvantaged and for consumer and homemaking education in depressed areas proved to have estimated coefficients significantly different from zero.

The conclusion to be drawn from this exercise is that only in the case

of discretionary spending for the handicapped can the variation in State fiscal actions be associated with differences in variables for which an a priori case can be made that those variables should influence State and local spending decisions. The important variables appear to be the relative incidence of poverty and levels of school expenditures.

Table B.1

Regression Analysis: Discretionary Spending Ratio, 1971
for the Disadvantaged (Part B 102(a)(4)(a) Funds)

Equation Number	Number of States	Coefficient for Constant	Coefficients for Independent Variables					Coefficient of Determination R^2 (R^2 adjusted for degrees of freedom)
			Per Capita Income	Percent Population in Poverty	Percent Change in State-Local Spending for Voc. Ed. 69-71	Average Per Pupil Expenditures	Per Capita School Expenditures	
1.	49	-2.4496 (2.4959)	.0011 (.0006)					.056 (.037)
2.	49	1.5182 (1.1154)		.0175 (.0778)				.001 (-.019)
3.	48	1.0456 (1.1841)		.0238 (.0778)	.4709 (.4066)			.028 (-.012)
4.	48	-10.8586 (2.3422)		.2183** (.0705)	.3791 (.3200)	.0113** (.0020)		.412 (.374)
5.	48	-9.9434** (1.8619)		.1852** (.0614)	.5732 (.2953)		.0406** (.0061)	.499 (.467)
6.	49	-7.6228 (3.9784)	.0019* (.0008)	.1557 (.0943)				.107 (.070)
7.	48	-8.4980* (3.9924)	.0020* (.0008)	.1680 (.0938)	.5334 (.3870)			.142 (.087)
8.	48	-8.5791* (3.3059)	-.0009 (.0009)	.1862* (.0778)	.3368 (.3231)	.0132** (.0027)		.424 (.374)
9.	48	-9.6606** (3.0878)	(-.0000) (.0007)	.1809* (.0724)	.5707 (.2987)		.0412** (.0071)	.500 (.456)

* Coefficient significant at 5 percent level of confidence.
** Coefficient significant at 1 percent level of confidence.
(The standard error of the estimate of the coefficients appears in parentheses below each coefficient.)

Table B.2

Regression Analysis: Discretionary Spending Ratio, 1971
for the Handicapped (Part B 102(a)(4)(b) Funds)

Equation Number	Number of States	Coefficient for Constant	Coefficients for Independent Variables				Coefficient of Determination R^2 (R^2 adjusted for degrees of freedom)
			Per Capita Income	Percent Change in State-local Spending for Voc. Ed. 69-71	Average Per Pupil Expenditure	Per Capita School Expenditure	
1.	48	-.7888 (.7902)	.0004 (.0002)				.075 (.056)
2.	48	.6585** (.1722)		.1324 (.1289)			.021 (.001)
3.	48	-.9071 (.7966)	.0004 (.0002)	.1345 (.1251)			.097 (.059)
4.	49	-.4305 (.5896)			.0015* (.0007)		.081 (.063)
5.	49	-.7642 (.7930)	.0002 (.0003)		.0009 (.0011)		.089 (.051)
6.	48	-.8755 (.8019)	.0002 (.0003)		.0008 (.0011)		.107 (.050)
7.	48	-.2463 (.5326)				.0047 (.0024)	.073 (.054)
8.	48	-9587 (.7989)	.0002 (.0002)	.1367 (.1251)		.0029 (.0030)	.115 (.058)
9.	48	-.3713 (.5436)		.1373 (.1252)		.0047 (.0023)	.096 (.058)
10.	48	-.4823 (.5935)		.1123 (.1255)	.0014 (.0007)		.097 (.059)

* Coefficient significant at 5 percent level of confidence.
** Coefficient significant at 1 percent level of confidence.
(The standard error of the estimate of the coefficients appears in parentheses below each coefficient.)

Table B.3

Regression Analysis: Discretionary Spending Ratio, 1971
for Post Secondary (Part B 102(a)2 Funds)

Equation Number	Number of States	Coefficient for Constant	Coefficients for Independent Variables				Coefficient of Determination R^2 (R^2 adjusted for degrees of freedom)
			Per Capita Income	Ratio of Enrollment in 2-year Public Institutions to Population Aged 18-24	Percent Change in State-local Spending for Voc. Ed. 1969-1971	Percent Population living in SMSAs	
1.	49	8.2370 (6.4459)	.0002 (.0017)				.000 (-.020)
2.	49	8.5441 (6.1776)	.0005 (.0016)	41.0476* (17.7089)			.101 (.064)
3.	49	6.7000** (1.4394)		40.0134* (17.2243)			.099 (.081)
4.	48	7.7997 (6.5598)	.0002 (.0017)		.4972 (1.0300)		.005 (-.036)
5.	48	8.6554** (1.3621)			.4960 (1.0196)		.005 (-.155)
6.	48	7.5951 (6.4039)	-.0001 (.0018)	44.4471* (19.1069)	.6294 (1.0063)	-.0218 (.0446)	.112 (.034)
7.	48	8.0581 (6.2819)	-.0005 (.0017)	41.3011* (17.8421)	.5549 (.9866)		.107 (.050)

* Coefficient significant at 5 percent level of confidence.
** Coefficient significant at 1 percent level of confidence.
(The standard error of the estimate of the coefficients appears in parentheses below each coefficient.)

Table B.4

Regression Analysis: Discretionary Spending Ratio, 1971
for Consumer and Homemaking Education in Depressed Areas (Part F Funds)

Equation Number	Number of States	Coefficient for Constant	Coefficients for Independent Variables			Coefficient of Determination R^2 (R^2 adjusted for degrees of freedom)
			Per Capita Income	Percent Change in State-local Spending for Vocational Education, 1969-1971	Percent Population in Poverty	
1.	48	.7514 (.5440)	.0003 (.0019)			.001 (-.020)
2.	48	5.6238** (1.5249)		1.5542 (1.1415)		.036 (.017)
3.	48	.5640 (.4246)	.0004 (.0019)	1.5562 (1.1528)		.037 (-.003)
4.	48	5.5861 (3.1798)			.1000 (.2220)	.004 (-.016)
5.	48	-1.2426 (11.9509)	.0014 (.0024)		.2033 (.2833)	.011 (-.030)
6.	48	3.9822 (3.3559)		1.5983 (1.1525)	.1213 (.2205)	.042 (.003)
7.	48	-3.9501 (-11.9785)	.0017 (.0024)	1.6502 (1.1612)	.2411 (.2816)	.052 (-.008)

* Coefficient significant at 5 percent level of confidence.
** Coefficient significant at 1 percent level of confidence.
(The standard error of the estimate of the coefficients appears in parentheses below each coefficient.)

Table B.5

Independent Variables Applied to Regression Equations

State	* Per Capita Income, 1970	1 % Increase State-local Spending, 1969-1971	* Average Per Pupil Expenditures, 1971	* Per Capita School Expenditures, 1971
Alabama	2828	50.6	489	125
Alaska	4676	60.9	1429	471
Arizona	3542	60.7	808	229
Arkansas	2742	30.1	578	145
California	4469	INA	879	268
Colorado	3751	170.2	780	211
Connecticut	4607	60.6	997	216
Delaware	4233	87.0	954	292
Dist. of. Col.	5519	INA	1046	238
Florida	3584	88.5	776	134
Georgia	3277	64.5	634	168
Hawaii	4530	INA	951	263
Idaho	3206	46.8	629	186
Illinois	4516	481.6	937	218
Indiana	3773	28.7	770	224
Iowa	3714	64.0	944	255
Kansas	3804	40.0	771	186
Kentucky	3066	42.3	621	143
Louisiana	3065	34.2	806	192
Maine	3243	78.0	763	209
Maryland	4247	168.8	968	266
Massachusetts	4294	329.3	856	197
Michigan	4043	28.9	937	258
Minnesota	3793	82.2	1021	290
Mississippi	2561	104.7	521	137
Missouri	3659	41.5	747	179
Montana	3318	89.1	866	243
Nebraska	3700	89.5	683	182
Nevada	4544	-52.5	808	222
New Hampshire	3608	74.7	729	181
New Jersey	4539	31.2	1088	241
New Mexico	3044	87.1	776	247
New York	4797	47.3	1370	283
North Carolina	3188	77.3	642	167
North Dakota	2937	17.0	689	178
Ohio	3983	55.9	778	191
Oklahoma	3269	86.3	676	168
Oregon	3700	51.4	935	227
Pennsylvania	3893	189.8	948	230
Rhode Island	3920	144.4	983	203
South Carolina	2908	- 8.5	656	177
South Dakota	3182	40.6	713	196
Tennessee	3051	70.8	601	147
Texas	3515	91.2	636	174
Utah	3210	64.6	643	204
Vermont	3421	351.0	1061	266
Virginia	3586	43.0	800	205
Washington	3903	75.1	873	245
West Virginia	2929	87.5	624	156
Wisconsin	3722	49.0	977	220
Wyoming	3420	121.9	927	250

Table B.5 (continued)

State	2 % of Enrollment to Population, 1970	* % Population in Poverty, 1969	* % Population in SMSAs, 1970
Alabama	5.2	24.7	52.3
Alaska	0.0	13.5	0.0
Arizona	20.3	13.4	74.5
Arkansas	0.9	21.1	30.9
California	28.1	9.6	92.7
Colorado	7.1	17.2	71.7
Connecticut	6.7	5.7	82.6
Delaware	4.7	15.7	70.4
Dist. of Col.	1.8	13.6	NA
Florida	15.1	20.5	68.6
Georgia	3.4	20.0	49.7
Hawaii	0.0	6.7	81.9
Idaho	3.7	8.6	15.8
Illinois	10.9	8.4	80.1
Indiana	0.4	11.1	61.9
Iowa	5.5	9.0	35.6
Kansas	6.5	8.2	42.3
Kentucky	0.0	14.1	40.0
Louisiana	0.9	22.2	0.0
Maine	0.0	14.1	21.6
Maryland	9.1	10.3	84.3
Massachusetts	5.2	6.7	84.7
Michigan	12.3	9.4	76.7
Minnesota	4.6	8.5	56.9
Mississippi	8.0	34.9	17.7
Missouri	6.1	14.3	64.1
Montana	2.6	16.7	24.4
Nebraska	2.3	10.4	42.8
Nevada	1.8	8.6	80.7
New Hampshire	1.1	9.6	27.3
New Jersey	5.8	7.1	76.9
New Mexico	0.8	17.8	31.1
New York	9.5	9.7	86.5
North Carolina	5.9	16.0	37.3
North Dakota	6.8	14.3	11.9
Ohio	2.5	10.2	77.7
Oklahoma	3.9	16.3	50.1
Oregon	16.3	10.3	61.2
Pennsylvania	3.2	10.7	79.4
Rhode Island	3.2	10.4	84.7
South Carolina	3.1	17.4	39.3
South Dakota	0.0	15.7	14.3
Tennessee	2.1	13.2	48.9
Texas	8.1	17.7	73.5
Utah	4.8	5.9	77.6
Vermont	1.8	12.4	0.0
Virginia	4.5	13.6	61.2
Washington	19.5	8.4	66.0
West Virginia	0.5	15.0	31.3
Wisconsin	6.3	6.5	57.6
Wyoming	16.6	14.4	0.0

* 1971 Statistical Abstracts
1 Vocational Education, Annual Report, 1969 and State Annual Reports on File in USOE
2 Opening Fall Enrollments, 1970, U.S. Office of Education

APPENDIX C: State Grant Mechanism Formula Characteristics, 1971

State	State's Formula		Disad. & Hand.		Four Criteria Used	Other Criteria Used
	Guideline Format	Math. Formula	Formula	Sep. Allot.		
Alabama	X	X		X	X	EDA
Alaska		X		X	X	-
Arizona	X	X	X		X	-
Arkansas	X	X	X		X	-
California	not available					
Colorado	X	X		X	X	-
Connecticut		X	X		X	1
Delaware	X			X	X	soundness of educational plan
Dist. of Col.	formula not used					
Florida	not available					
Georgia		X	X		X	-
Hawaii	not available					
Idaho		X	X		X	-
Illinois		X	X		X	-
Indiana	X			X	X	2
Iowa	X	X	X		X	-
Kansas	X	X	X		X	EDA, HDO, program quality
Kentucky		X	X	X	X	-
Louisiana	X	X	X		X	-
Maine	X	X		X	X	-
Maryland		X	X		X	-
Massachusetts	X		X		X	EDA, HDO, PP
Michigan	not available					
Minnesota		X		X	X	-
Mississippi		X	X		X	-
Missouri	X	X	X	X	X	3
Montana	not available					
Nebraska	X	X	X		X	-
Nevada		X	X		X	EDA, HYU
New Hampshire	X	X	X		X	evidence of change or growth
New Jersey	X	X		X	X	4
New Mexico	X	X		X	X	-
New York	not available					
North Carolina		X	X	X	X	-
North Dakota	X	X	X		X	-
Ohio		X	X		X	-
Oklahoma	X	X		X	X	EDA, HDO, PP
Oregon		X	X		X	-
Pennsylvania		X	X		X	EDA
Rhode Island		X		X	X	-
South Carolina		X		X	X	-
South Dakota	X	X		X	X	local effort, EDA
Tennessee		X		X	X	regions & programs are weighted
Texas		X	X		X	-
Utah	X		X		X	-
Vermont	X	X	X		X	PP
Virginia	X		X		X	-
Washington	X			X	X	-
West Virginia		X	X		X	-
Wisconsin		X	X		X	EDA, HDO, PP
Wyoming		X		X	X	-

1. Occupational growth potential. Prepares for higher technical education, provides new program serving additional students.
2. Comprehensiveness of plan, community support, and program evaluation.
3. All LEAs given basic allotment, remainder distributed according to the formulas.
4. Facilities, staff, and evaluation of appropriateness of program.

Subjectivity		Other Crit.	Basic	Weight Distribution					Urban-	Establ.
Weight Assign.	Final Fund Distrib.	Subordinate 4 Original	Assump-tions	Manpower Needs	Voc.Ed. Needs	Ability to Pay	Excess Costs	Other	Rural Bias	Programs Favored
pa ally	-	-	-	21.9	29.9	5.4	27.5	15.3		
partially	-	5	-	20/heavy[6]	40/v.h.	20/equal	20/eq.			X
partially	-	-	-	20/50	30/20	20/15	30/15			
yes	-	-	-	30	40	20	10			
		-	-	20	35	35	10			
partially	-	-	-	weights cannot be determined						
-	-	yes	-	27	27	13	13	20		
-	-	-	-	15	30	50	5			
-	-	-	-	25	50	12.5	12.5			
-	-	-	-	14.3	57	14.3	14.3			
yes	-	possible	-	30	25	20	10	15		
-	-	-	-	weights cannot be determined						
-	-	-	-	35	20	15	10	5/5/10[7]		
		-	-	25	25	25	25		Urban	
yes	-	-	-	33	42	17	8			
partially	-	-	-	17	33	33	17			
-	-	-	-	14	43	14	29			
yes	-	-	-	30	15	20	15	20		
partially	-	-	-	20	40	20	20			
-	-	-	-	30	50	10	10			
pa ally	-	-	-	23.3	22.1	31.2	23.3			
partially	-	-	-	36	36	18	10			
-	partially	-	-	weights cannot be determined						
yes	-	-	-	20	40	30	-10	10		
yes	-	yes	-	8.8	8.8	14.7	11.7	18/18/21		
partially	-	-	-	10	45	27	18			
-	-	-	-	20	70	spec.form.[8]	10			
partially	-	-	-	23.1	38.5	30.7	7.7			
-	-	-	-	16.6	50	16.6	16.6			
yes	-	-	-	25	25	15	10	8/7/10		
-	-	-	-	weights cannot be determined						
-	-	-	-	15.4/13.3	30.8/40.0	15.4/13.3	23.2/20.0	15.4/13.3		
-	-	-	-	20	40	30	10			
-	-	-	-	14	71	10	4			
partially	-	yes	-	10	10	35	10	20/5		
-	-	-	-	25	35	35	5		Urban	
yes	-	-	-	29/35	35/29	24	12			
-	-	-	-	1.75	95.3	1.2	1.75			
yes	-	yes	-	20	25	25	5	25[9]		
yes	-	-	-	25	25	25	25			
-	-	-	-	25	25	25	25			
-	-	-	-	10	10	70	10			X
-	-	-	-	30	15	20	15	20		
-	-	-	-	14	58	21	7			

5. Number of vocational education students and value per average daily membership (dollar value) provides basis of formula. Manpower needs determine how heavy the reimbursement rate will be.
6. Disadvantaged & Handicapped/Regular Secondary.
7. Weights correspond to Other Criteria Used.
8. Specific formula.
9. "Other" can be combined with "Excess Costs."

APPENDIX D

Data Base

All expenditure data for Fiscal Years 1969 and 1971 were taken from the annual reports, state plans, and Vocational & Technical Annual Report.

The Fiscal Year 1969 data were aggregated from the annual reports and are considered final. In some states the amounts differ from the Vocational & Technical Report because our data are final and the Annual Report is preliminary.

The data that are presented for Fiscal Year 1969 were set up in work tables on a detail basis and aggregated to generate the needed data.

In some cases it was necessary to utilize data from the Vocational & Technical Annual Report because it was the single available source for Fiscal Year 1969.

All the data displayed for Fiscal Year 1971 were taken from the State plans and the annual reports, where primary sources of these data were taken from Office of Education Forms 3129, 3131, and 3132.

All the data for the States are preliminary and revisions of the majority of them are anticipated. In some cases the data are incomplete and prevented use in some data displays.

To maximize the use of all available data, NPA card punched the detail data and generated aggregates for each State through our computer. This approach allowed maximum usage of the available data and permitted us to run computations that might not otherwise have been available.

In all cases NPA has attempted to utilize that data that were most appropriate to the years in which reported.

APPENDIX E

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